The Lumleian Lectures
ON
BRONCHITIS, PULMONARY EMPHYSEMA, AND ASTHMA.

Delivered before the Royal College of Physicians of London

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LECTURE I.[1]

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ON THE CAUSES AND FORMS OF BRONCHITIS.

MR. PRESIDENT AND GENTLEMEN,—The Royal College of Physicians of London has never forgotten the exhortation addressed by Harvey "to the Fellows and Members of the said College to search and study out the secrets of nature by way of experiment." No doubt he used the word "experiment" in a wider sense than that which it bears at the present day, for in his time the terms "experiment" and "experience," originally synonymous, had not yet acquired the sharply distinguished meanings which we give to the words. My predecessors in this lectureship have usually drawn the material wherewith they have fulfilled their duty from their experience in the detection and treatment of disease, and the conditions of my life for many years past have put the necessity upon me of following in the same track to the best of my ability. How much more difficult a task this is than to compile lectures out of the unlimited data of that factitious experience which we distinguish as experiment is brought home to me when I recall the preparation of the Goulstonian Lectures which I gave in this room nearly 30 years ago. Experience cultivates a capricious soil, which too often yields a scanty harvest; the fruits of experience are those which nature happens to afford and no more. Our hopes for the future lie in the fields of experiment where we can work under conditions of our own making and can, as it were, propose questions to nature and compel her to answer them. Results so beneficial to mankind as those afforded by the antiseptic treatment of wounds and by the serum treatment of diphtheria make the followers of Hippocrates and Sydenham look with regret upon their methods, so slow when compared with those of experimental pathology.

DEFINITIONS.

Scattered through the Hippocratic treatises are frequent references to a doctrine that the brain resembles a gland and is the "metropolis" for separation or secretion (words which have almost the same meaning) of cold and viscid humours. When these humours have accumulated in excessive quantity the brain purges itself by discharging them upon the lower parts of the body—a process called catarrh, defluxion, or distillation of rheum, pituita, or phlegm. In the name of the pituitary body we find a survival of this doctrine. The diseases which result from defluxion of rheum have, says Plato, "many names, because the places subject to the flux are manifold." By the Hippocratic writers seven kinds of catarrh are enumerated; by the time of Celsus the number had been reduced to three. In the Salernitan verses these same three defluxions are enumerated, but the name catarrh is restricted to defluxion upon the lungs, catarrhus ad pulmones, pulmonary catarrh.

The change from ancient to modern doctrine is marked by a voluminous treatise in six volumes quarto, published between 1660 and 1664, and written by Schneider whose name has been given to the Schneiderian membrane. We must admire the divine leisure of the times which could allow any man to write such a book or any man to read it. This change in the doctrine of catarrh was brought about partly by the progress of anatomy and partly by Harvey's discovery which sapped the authority of the ancients.

Since Schneider's time catarrh has denoted excessive secretion of more or less altered mucus from a mucous membrane. Hence pulmonary catarrh signifies a disordered function of the pulmonary mucous membrane, the result being an excessive secretion. The corresponding lesion of structure—that is to say, inflammatory changes in the mucous membrane—is called "bronchitis," a word which was invented in 1814 by Dr. Charles Badham, a Fellow of this College, and which has to a great extent superseded the old phrase of "pulmonary catarrh." It is amusing to contrast the diminutive duodecimo of Badham with the gigantic work of Schneider. The use of the word "bronchitis" marks the predominant influence of morbid anatomy. Bronchitis and pulmonary catarrh although for the most part they denominate different aspects of the same disease yet do not exactly tally; bronchitis is not always catarrhal; for instance, it may be attended not by flux of mucus but by formation of false membrane.

CAUSES.

Bronchitis is a disease of much interest for the English people inasmuch as in our country a pulmonary catarrh is the commonest of disorders at all ages and in all ranks and conditions of life. In speaking thus of the frequency of bronchitis it is worthy of note that this opinion is derived from clinical experience and that bronchitis is not a condition which attracts much attention on the post-mortem table, where the severe forms only of the disease are recognised, or, indeed, one might almost say, can be recognised, without much more minute examination of the bronchial tubes than they usually receive. When we ask why bronchitis should be so common we are led to consider the causes of the malady. Let us begin with the simplest case possible and seemingly the most intelligible.

A number of men are working in a room when a large carboy of fuming nitric acid is broken. They all flee. After a time a healthy young man, having tied a wet towel round his mouth, goes back into the room and opens the windows. Symptoms of bronchitis immediately appear, painful soreness down the sternum and dyspnœa, his voice remaining natural. Next day he has a harsh dry cough and abundant small mucous râles all over both lungs; his temperature rises to 101·4° F., his pulse to 100, and his respirations to 56 in the minute. On the third day the temperature varies between 99° and 101°, the respirations fall to 44; the signs in the chest are much the same. On the fourth day the temperature falls from 100° in the morning to the normal in the afternoon; the râles have almost disappeared. On the sixth day he is quite well.

Bronchitis, being an inflammation, presumes irritation of the mucous membrane and in this case there was no reason for supposing that the irritation was originally due to anything besides the nitrous fumes, even if we admit the possibility that microbes might afterwards come to play their part upon a soil thus prepared for them. But the cause of bronchitis is seldom so simple as this.

Breathing dust has long been recognised as a cause of pulmonary catarrh: for instance, Ramazzini two centuries ago devoted several chapters of his book "De morbis artificum" to the diseases, chiefly pulmonary, which attend dusty trades. At the outset it seems to be necessary to distinguish between dust which is alive and inanimate dust. Taking inanimate dust first as being the less complex topic we must again distinguish between dust which contains soluble constituents and that which does not.

Insoluble dust is in most cases of mineral nature, yet the air of a cotton mill is smoky with vegetable dust. The bronchitis resulting from dusty trades is very chronic, insidious in onset and slow in progress. Insoluble dust is supposed to act as a merely mechanical irritant to the bronchial membranes, but can we say that any sort of dust is absolutely insoluble? And when we endeavour to look more deeply into the matter other doubts arise, as usual. We suspect that the tendency to bronchitis which prevails among workmen in dusty trades is often aggravated by intemperate habits in respect of alcohol and tobacco. Probably in some workmen there is an original disposition to suffer in this way, such as we see in many asthmatics who are very sensitive to dust. Moreover, the dust of unclean and ill-ventilated rooms will be very likely to contain morbific microbes and the irritation of the air-passages set up by inanimate dust will favour the operations of the many bacteria which are potent to cause bronchitis. It obviously would be very improbable that these microbes should swarm in impure air and should not be found in the upper air-passages of man. And thus, as a matter of fact, our mouths, noses, and throats harbour many morbific microbes in a latent state; they are there awaiting a favourable opportunity for

[1] Lectures II. and III. will be delivered on March 21st and 23rd, 1899.

becoming active and virulent, when, to quote the Virgilian phrase of which Sydenham was so fond, *qua data porta ruunt*.

Although it is probable that inanimate dust is sometimes noxious by reason of its soluble constituents yet it is not easy to point to many instances of this kind. The dust of ipecacuanha, which is often referred to, produces asthma rather than catarrh, but it may be that this is a distinction without real difference.

The topic of living animated dust follows in natural order. The best instance of this kind of dust is afforded by the pollen of grass which seems to have been proved capable of causing hay fever in some susceptible persons, though that in which the irritant power of pollen inheres is not known. And the question is complicated by the fact that in a few persons the mere odour of roses and some other flowers seems enough to provoke catarrh, although, since the famous experiment of Dr. J. Noland Mackenzie, with an artificial rose, we have learned how large a part in the production of such a catarrh can be played by the power of imagination. Moreover, the particles which convey the smell of flowers must be far too minute to be rightly called dust and therefore we will not pursue the subject here, but only remark that hay fever affords the best evidence of that idiosyncrasy which predisposes to catarrh.

The catarrh which is caused by the living dust thrown off by certain moulds and fungi is sometimes a much more serious affair. The best known of these fungi is the dry rot of deal wood—merulius lacrimans. The disease it sets up is sometimes fatal. Beside the catarrhal symptoms indicated by the epithet "lacrimans" there are signs of poisoning of the whole body. The fungus grows upon the mouth and fauces, whence we may assume that the morbific agent consists of living seeds which under favourable conditions will strike root in the human body, will increase and multiply, will become, in fact, true parasites, and will poison us with their secretions.

Grass pollen is morbific, dry rot is morbific and parasitic, but they are only *accidentally* so; it is not the purpose of their life to cause disease in man. But there are certain living particles called "microbes" which are *essentially* morbific and parasitic, which to the best of our knowledge are that and nothing else, which continue to exist by causing disease and for that sole purpose, as it seems to us—which are morbific or nothing at all because, being merely parasitic in animals, it follows that if these animals ceased to exist the microbes also would become extinct. Some of these microbes are found almost everywhere; they pursue the steps of men and are apt to attack us at all times and places. But some microbes thrive only under certain circumstances; the best known of these causes of bronchitis are typhoid fever and influenza. In some forms of bronchitis the disease is local and expends itself upon the mucous membrane; the catarrh is protopathic. But in typhoid fever and influenza the case is different, the catarrh is deuteropathic and secondary to infection of the whole system. These two diseases are members of the great class of specific fevers and we are compelled by analogical reasoning to believe that other members of that class which are still more powerful causes of bronchitis are also microbic in nature—for example, measles and whooping-cough. How they cause bronchitis is a question not yet ripe for answer, meanwhile we assume that some irritant is conveyed to the mucous membrane by the blood.

We have now passed from the simplest to the most complex causes of bronchitis so far as our knowledge will allow and yet by far the greater number of actual cases of bronchial catarrh remain unexplained. What is the explanation of a common cold? We can hardly doubt that chill by exposure of the body has often something to do with it, but how? Let us note that colds are seldom caught, as we say, in pure air—at sea, for instance—no matter how great the exposure. Let us note also that common colds are often contagious with an incubation period of about three days. You will remember the deeply interesting experience of the St. Kilda cold, a fact which seems to be well proven notwithstanding the incredulity of Dr. Samuel Johnson and which seems to show that persons who are not themselves suffering from catarrh may yet convey the disease to others, and that a cold past and gone confers temporary immunity. We have heard of late that upon some of the small islands in Torres Strait the natives until they took to wear clothes were exempt from coughs and colds. But it is difficult to understand how the mere fact of clothing pure and simple can have been the cause of those disorders. It would seem to be more probable that the inhabitants have been infected by their clothes or other means and that the catarrhs have been really due to the intruding foreigner who brought along with him his civilisation and his diseases.

THE CATARRH.

Of the signs which make bronchitis manifest in the living body the most important is the catarrh, the excessive secretion of mucus. We might expect that physicians would pay great attention to the sputa, and such has been the fact from the earliest times. A sharp distinction has been drawn, since Hippocrates at least, between transparent sputa and opaque sputa; chiefly for prognostic reasons based upon the old doctrine of the concoction of humours, opacity being the sign of maturity and a stage which the secretion must pass through before the catarrh can end in recovery. This distinction being of such prime importance in the opinion of ancient physicians, it is remarkable that they had no words in use to correspond with their ideas. "Phlegma," "blenna," "pituita," "mucus," all these words were used haphazard to signify matter constituting the sputa, whether transparent or opaque. In truth, the distinction is not of great value; however true it may be of acute coryzal secretions that the mucous discharge becomes muco-purulent on the way to recovery we do not always mark these stages in bronchitis even when acute, while in chronic bronchitis the distinction is of small importance, either prognostic or diagnostic. How common it is to see mucous and purulent sputa in the same spitting-pot; to see purulent sputa floating or lying in thin, transparent, colourless mucus: probably the different secretions come from different parts of the bronchial tract. How common it is to observe that sputa expectorated at different times of the day are different in character, the secretion being, for example, nearly pure mucus throughout the day, but much more purulent the first thing in the morning after sleep.

PITUITOUS CATARRH.

To the general rule that the distinction between crude and concocted sputa is unimportant there is one exception worthy of special note. Laennec, in his chapter upon pulmonary catarrh, has much to say concerning a form of catarrh which he calls "pituitous." He uses the word "pituita" in a sense of his own; he makes it signify colourless, transparent, stringy sputum, frothy at the top, and which when the froth has been removed resembles water stirred up with white of egg. We must all recognise the truthfulness of this description. Louis compared the sputum to gum-water, Borsieri to soapsuds. It is to be wished that the word "pituita" be used to denote this kind of sputum only, because there is no doubt that the catarrh which Laennec calls pituitous does present peculiar characters.

He remarks that pituitous catarrh is symptomatic of other pulmonary diseases besides mere bronchitis, especially œdema of the lungs and miliary tuberculosis. With respect to œdema of the lungs let us note that the albuminous or serous expectoration which occasionally ensues upon paracentesis for pleural effusion, and which depends upon acute œdema of the lungs, and which always brings danger and often death, has to the eye all the characters of pituitous flux. Testing the sputa can alone distinguish the two: serous expectoration is highly albuminous; pituita is not albuminous at all. With respect to tubercle let us note that not only miliary tuberculosis but also massive grey tuberculous infiltration may be attended by pituitous expectoration. A man, 35 years old, had a shivering fit on Sept. 6th. On the 8th he felt sudden pain in the right side of his chest, he coughed, and was feverish. On the 16th he was admitted to the hospital, being the eleventh day of his disease. Consolidation of the upper part of the left lung was found, and the previous symptoms having been those which most usually attend pneumonia it was thought that the lung was hepatised. But the consolidation did not clear up as was expected; on the contrary, the physical signs of disease increased, and by Oct. 10th (the end of the fifth week of illness) the breathing about the left nipple was cavernous. All this time the sputa were pituitous, a fact which seemed contrary to the notion of ulcerating tubercle; moreover, the expectoration was examined twice for tubercle bacilli, probably with insufficient care, and I am speaking of a time seven or eight years ago when there was less skill in

this method of examination than at present; but, at any rate, tubercle bacilli were not found. Soon afterwards the pituitous sputum became mingled with muco-purulent masses; the physical signs were much more extensive; finally all the expectoration was muco-purulent and nummular and the man died on Dec. 25th after an illness of between three and four months. Post mortem the left lung was found to be solid with grey tubercle from apex to base; there were only two cavities and these of small size.

Besides pulmonary œdema and tubercle there are two other diseases of the lung which are often attended by pituitous expectoration—namely, the congestion which is consequent upon a dilated heart and contracting cancer.

Pituitous catarrh is sometimes "idiopathic"—a word which we need not be afraid to use provided we attach a definite meaning to it. The original and etymological meaning of the word is its true meaning and pituitous catarrh is idiopathic when it constitutes the whole of the disease. It is sometimes acute, sometimes chronic, and in either case is a very serious condition. The acute catarrh occurs at all ages and often in persons perfectly healthy who have shown no previous tendency to pulmonary disease. The secretion rapidly becomes so profuse that it puts life in jeopardy and will sometimes even kill by suffocation in a day or two. Yet for the first few hours the attack resembles a common cold with cough, and there are no peculiar symptoms attending the earliest stage which enable us to foresee that we have to do with the beginning of so formidable a disease. It does not always kill; sometimes it runs the course of ordinary severe bronchitis and ends in recovery.

Chronic pituitous catarrh is more common. It is serious on account of its obstinacy. To Laennec's admirable description of this disease there is nothing to add unless it be to say that it does sometimes attack persons in the prime of life. A Japanese, 25 years old, came over as a ship's steward to England and immediately upon his arrival began to suffer from shortness of breath and cough—a new thing for him. After these symptoms had lasted for 14 weeks he was admitted to the hospital. There were much dyspnœa and most abundant expectoration of pituita. Tubercle bacilli were not found. The physical signs were those of severe bronchitis. For days together he seemed about to die from suffocation, but under very careful treatment he improved until, without any obvious cause, the symptoms recurred in full severity. Another improvement was followed by another relapse and more than four months had passed away since his admission ere he could be discharged fairly convalescent. This was on May 8th; but on June 16th he was readmitted with all his former symptoms; he went out on July 16th. On Dec. 5th he was admitted once more and the time of the year was probably the reason why we could not get rid of him till Feb. 25th. He had now been a patient on and off for more than a year and as there seemed no end to this sort of thing the sister of the ward got up a small subscription and shipped him off to the antipodes.

PECULIAR KIND OF BRONCHITIS.

There is a form of disease which may justly claim to be called catarrhal if we use that word in its strict etymological sense. Graves, speaking of the condition referred to, says: "When an old person reduced by some previous disease catches cold and gets in consequence a sudden and remarkable hoarseness so that he can only speak in whispers; when in addition to this he has cough, stridulous breathing, and copious muco-purulent expectoration, you may be sure that the case is a bad one and the patient in most imminent danger." He goes on to say that the disease is accompanied by considerable fever and that he did not recollect that he had ever seen an attack of this kind that did not terminate fatally. He narrates the case of an eminent country practitioner who "had got an attack of cold followed by hoarseness, which went on for two or three days without being attended to, until one evening he suddenly became alarmingly ill. He was found to be labouring under hoarse breathing, constant laryngeal cough, prostration of strength, and enormous muco-purulent expectoration. His pulse was very rapid, he complained much of oppression of the chest, and he died on the following night, more with symptoms of exhaustion than of asphyxia." Graves tells of another similar case in which the "breath became exceedingly fetid. The expectoration also exhibited a very remarkable change; it was greenish, ichorous, and had a most intolerable fœtor. He now began to manifest symptoms of awful prostration; his distress of respiration became intense, his eyes fixed, his extremities cold, and he expired in about 40 hours from the commencement of the attack."

But this form of bronchitis sometimes occurs in old people whose health has certainly not been "reduced by some previous disease." I saw a lawyer, 74 years old, with Dr. T. Robinson. He was in good health when one April, while waiting for a train at Wimbledon, he was exposed to a chilling east wind. Next day, April 8th, he lost his voice. On the 9th his breathing became a little affected and swallowing was very painful. His voice was not much more than a whisper. Seen by the laryngoscope the epiglottis was very red but not much swollen; the ary-epiglottic folds were not swollen; the glottis was widely open and through it there welled up much muco-pus. On the 10th he seemed better in all respects. He expectorated much brownish muco-pus which, both in colour and smell, reminded one of the sputum of gangrene; this phlegm came up with the least possible effort, hardly amounting to cough. The laryngoscope showed that the redness of the epiglottis was less and that there was no swelling whatever. The voice was much louder. But during the night he became worse; fever appeared for the first time and he complained of pain in the left side. The laryngeal symptoms were gone and his voice was natural, but his breathing became very frequent and he died at evening on the 11th. The fœtid expectoration calls for remark. Graves assumes that in his case the lung had mortified, but he gives no proof of this, and in my case the fœtor occurred within 48 hours from the beginning of the illness in a man previously healthy. Gangrene would hardly set in so rapidly as this. To suppose, in the absence of post-mortem examinations, that the smell is due to decomposition of the secretions—to a fœtid bronchitis, in short—would seem more probable.

Disease of this kind is not peculiar to the old. Some years ago I saw a boy, aged seven years, with Dr. Bland. The patient had been seized a day or two before with laryngeal symptoms which, when I saw him, deserved the name of croup, and the dyspnœa became so urgent that tracheotomy was demanded and performed. We could see that the epiglottis was not swollen but we could make out nothing more, for examination by the laryngoscope brought on vomiting. The dyspnœa was somewhat relieved but the boy died a few hours after the operation with all the signs of pulmonary dyspnœa. The only part which we were permitted to examine post mortem was the larynx; its mucous membrane was exceedingly red, but there were no false membranes and no œdema, nor were false membranes expectorated or seen during life. The laryngitis was a part (but at first the most obtrusive part) of more widely diffused inflammation. When tracheotomy set the laryngeal symptoms aside the bronchitis became manifest. Moreover, in this case there was no reason for suspecting measles. The analogy of the early laryngitis stridula of that disease will occur to your minds at once.

It is likely that the disease in question is essentially of the same nature as œdema glottidis—that is to say, a specific inflammation spreading rapidly, like erysipelas. Hippocrates uses this very word and in several places speaks of erysipelas in the lung, but to identify the disease thus designated by him is not easy.

DYSPNŒA.

To breathing with conscious effort we give the name of dyspnœa. It arises from a peculiar sensation which is not always of the same kind. Two sensations at least can be distinguished. One is sensation of want of breath and impels to inspiration; another sensation impels to expiration. The feeling of want of breath arises within the chest and seems to involve all the thoracic organs. The feeling which impels to expiration seems to arise from the windpipe—that is to say, a patient suffering from expiratory dyspnœa will refer this feeling to the manubrium sterni and region of the trachea. This tracheal sensation closely resembles the feeling which impels to cough and it is the cause of that expiratory groaning which is so common during the uneasy sleep of patients suffering from bronchitis, emphysema, or heart disease. I do not refer to snoring or stertor, which are inspiratory noises. Thus medical physiology requires two respiratory centres, one for inspiration and one for expiration.

It has been said that in bronchitis attended with laborious breathing the chief difficulty is in inspiration; that the expiratory act, on the contrary, is always accomplished with

comparative ease; and that these phenomena of laborious breathing, particularly the long-drawn, exhausting, inadequate inspiration, are probably quite peculiar to obstructive bronchitis. But surely these propositions are far from being universally true. Even in slight bronchitis occurring in a man who never had bronchitis before the expiration may be much more forced than the inspiration in consequence of the provoking tracheal sensation spoken of before. In chronic bronchitis when the patient raises phlegm with difficulty the most obvious thing about the respiratory movements in many cases is the forced expiration. If we would see inspiratory dyspnœa in its highest degree and purity it is not to bronchitis, but to laryngitis, that we must look; to angina laryngea, not angina bronchialis. In mere bronchitis we seldom see anything like the inspiratory dyspnœa of croup.

LIVIDITY.

Lividity is not a marked symptom of bronchitis except in the worst cases. When we see a patient whose dyspnœa amounts to orthopnœa and whose lips are purple or almost black we suspect at first sight disease of the heart rather than disease of the lungs. Again, if we see great lividity in a case of bronchitis we suspect some complication—for instance, pulmonary emphysema, extensive collapse, broncho-pneumonia, scattered tubercle, or distended heart.

The phrase "suffocating catarrh" has been used in senses so varied that some persons have suggested that it should be wholly discarded. Even apoplexy and croup have borne that name. We can continue to use it only on condition that suffocating catarrh shall signify bronchitis in which the patient is in danger of being stifled by bronchial secretion thrown out more rapidly than it can be expectorated. The metaphorical phrase "paralysis of the lungs" has been applied to these cases of catarrhal infarctus. We meet with suffocating bronchitis under three conditions. First, in infants; and a main cause of their liability to suffocating catarrh is to be found in the shape of their thorax which, being almost circular on horizontal section is incapable of more than small lateral expansion. The only extraordinary enlargement which their chest can undergo is by vertical elongation, upwards by means of the accessory inspiratory muscles and downwards by excessive diaphragmatic contraction. Moreover, their ribs are often soft and rickety. Next, we meet with suffocating bronchitis in adults when they are attacked by pituitous catarrh in a severe degree. And, thirdly, suffocating bronchitis is common as an exacerbation of chronic bronchitis in persons who are for the most part advanced in life.

In these cases, post mortem, we often find that form of pneumonia which bears no name adopted universally. Our own Nomenclature gives us the choice of three names. We may use the name "lobular pneumonia," in contradistinction from lobar pneumonia; or "broncho-pneumonia" in contradistinction from pleuro-pneumonia; or catarrhal pneumonia in contradistinction from what has been called "croupous pneumonia." The name of broncho-pneumonia is to be preferred. Croupous pneumonia is what Polonius would have called a very vile phrase. It is amusing to note how the Lowland Scotch word "croup" (the cognate English word is "roup") which signifies a certain kind of noise, has come to be applied to a morbid exudation—a perversion due to foreign pathologists who could not have known the meaning of the word which they were using or abusing. And thus croup, having undergone this strange metamorphosis in the course of his travels abroad, comes back disguised to his native land and we receive him with open arms. Such are English ways.

Broncho-pneumonia is the last stage of inflammation extending downwards along the air-passages into the pulmonary lobules. Catarrh implies a mucous membrane; but the bronchiola which feed the pulmonary lobules with air possess no mucous membrane; in these parts, therefore, lobular hepatisation takes the place of bronchial catarrh. The difference in the products of exudation depends more upon the situation of the disease than upon any difference in its cause. The microbes found in lobular pneumonia are the same as those found in bronchitis although the relative frequency with which they are found is not the same in the two diseases. To the last volume of St. Bartholomew's Hospital reports Dr. Horton-Smith has contributed a valuable paper upon the bacteriology of acute broncho-pneumonia. He finds that the microbe most frequently present is pneumococcus, less frequently streptococcus, and still less frequently staphylococcus. He finds that the broncho-pneumonia of typhoid fever is due to these common microbes and not to the special typhoid bacillus. But he thinks that the broncho-pneumonia of diphtheria and influenza most frequently depends upon their several proper and peculiar microbes; and yet that in a few cases the pneumonia is not specific—that is to say, none but the common pyogenic microbes are found. One very practical truth has been well established—namely, that in measles the frequency with which broncho-pneumonia occurs is dependent upon the degree of impurity in the air breathed. The main cause of death in measles is broncho-pneumonia, and the mortality in some epidemics has been as high as 50 per cent. Thus any mysterious change of type or epidemic constitution seems to be resolved, so far as concerns measles, into the condition of the air breathed by the patients. Hence the necessity for isolation, for ventilation, and for cleanliness.

The pneumonic part of broncho-pneumonia is a post-mortem disease or, in other words, it can seldom be detected with certainty during life. In severe progressive capillary or suffocating bronchitis which threatens the patient with death we may assume that lobular pneumonia is present, inasmuch as it is the last stage of the disease. Neither symptoms nor physical signs help us much; the patient is too ill to bear prolonged examination; nor does it matter in the least whether we detect the pneumonia or not, for our treatment is the same in both cases.

CHRONIC BRONCHITIS.

Chronic bronchitis associated with emphysema, and in all respects like the disease common in old people, is by no means very uncommon in the young—that is to say, in patients under 20 years of age. But this is the case especially among the lower classes of the people; among the well-to-do chronic bronchitis is uncommon in the young. When we bear in mind that with asthma it is quite the reverse—that juvenile asthma is common among the well-to-do and uncommon among the lower classes—the suspicion arises that we have to do with what is essentially the same disease assuming different forms under different conditions of life. The poor are very careless with regard to their health and it is probable that through neglect what would otherwise be asthma becomes a chronic pulmonary catarrh.

The heart is dilated more easily in children than in adults and thus cases of juvenile chronic bronchitis gradually pass into a state wherein the symptoms of dilated heart predominate over those of the original disease. Some years ago I examined the body of a boy, 13 years old, who had suffered from chronic bronchitis since 18 months of age, when he had measles and whooping-cough. He was so deeply cyanotic that the question of malformed heart arose; his fingers were much clubbed and there was universal dropsy. The post-mortem examination showed emphysema of the lungs, especially of their anterior parts. The right side of the heart was much dilated and hypertrophied, but there was no valvular disease nor was there any malformation. The liver was nutmeg.

That predisposition which tends to make bronchitis chronic is often hereditary and is often acquired. In many persons a powerful assistant cause of the chronic bronchitis is alcohol. Sydenham alludes to this fact when speaking of "peri-pneumonia notha," which no doubt for the most part consisted of febrile exacerbations of chronic bronchitis. He says that the disease "affects those who are of virile age, or, what oftener happens, those who are older and who have been too much given to spirituous liquors, especially to brandy." The evil effect of alcohol is sometimes seen in persons who cannot be justly called intemperate and a marked diminution of the tendency to bronchitis will sometimes occur in patients who become total abstainers after having been in the habit of drinking not more than a usual quantity of wine. The swollen, deeply red, and irritated soft palate of many hard drinkers probably affords a clue to the nature of alcoholic bronchitis.

Post-mortem examination of the bodies of persons past middle life reveals the fact that their chronic bronchitis is seldom unassociated with chronic nephritis, arterio-capillary sclerosis, chronic endocarditis or pericarditis or myocarditis, and atheroma of the aorta, not to speak of pulmonary emphysema—lesions which constitute an important part of the condition which we designate "old age."

That a tendency to chronic bronchitis and a tendency to gout concur in many patients is a frequent experience and there can be no objection to our expressing this fact by

calling the bronchitis gouty, provided the evidence of gout be sufficient. But I fear that gouty bronchitis is often talked about when the evidence of gout is small. Before the term "gouty" is predicated of any disease the reasons for the affirmation ought to be carefully examined. To define the word "gout" is not possible; the essential nature of gout we do not know. Doubtless there are satisfactory criteria or notes of gout, such as regular attacks in the hand or foot, tophi, and the discovery of uric acid in the blood. But medical men are often content with much lower probability than this when they pronounce a patient to be gouty and I am far from saying that they are wrong. Howbeit the name of "gout" has been extended in meaning so as to include a vast number of diseases, but whether these speculations are as sound as they are ingenious, whether they are solid structures grounded on truth or no more than the phantoms of a lively imagination I will not take upon myself to determine. Time will show. "Medicina non ingenii humani partus est sed temporis filia."

PHTHINOID BRONCHITIS.

There is a form of chronic bronchitis which bears a close resemblance to tuberculous pulmonary consumption; the disease is nothing but bronchitis, yet the symptoms are those of phthisis pulmonalis. The interest of this topic is mainly antiquarian for us because it throws an important light upon the progress of pathology. Before the invention of auscultation the patients alluded to were necessarily believed to be suffering from pulmonary consumption, and, indeed, they were so suffering in the original sense of the phrase. For the epithet, "consumption" or "phthisis," related to the condition of the whole body, to the progressive emaciation in fact, while the word "pulmonary" indicated that the disease, whatever it was, which caused the emaciation, was seated in the lungs. This was the sense in which our eminent Fellow, Richard Morton, used the phrase in his admirable book entitled "Phthisiologia." In the phthinoid or consumptive form of bronchitis there is an abundant expectoration of purulent sputa. The early physicians knew of no source of pus but an ulcer and hence they inferred that the lungs were ulcerated. The first man to discover that this was not the case was that singularly accurate observer Antony de Haen; but even after he had shown that the lungs, examined post mortem, were to all appearance sound, free from all ulceration, and yielding not a drop of pus on section, yet matters were not much advanced for practical medicine because the diagnosis could not be made during life. And here the subject stood until the time of Laennec. Perhaps you remember that Sir Thomas Watson confessed in his lectures that he once made this mistake and pronounced a young woman to be in the last stage of consumption who soon afterwards made a rapid and complete recovery, he having omitted to auscultate her chest. Even auscultation does not always enable us to distinguish these cases with perfect certainty, but since Robert Koch's discovery of the tubercle bacillus we have a potent auxiliary to diagnosis in the microscopic examination of the sputa.

CONCLUSION.

In conclusion, we will revert to the results of our search into the causes of bronchitis. We found it to be highly probable that most catarrhs are due to a specific infection and they often depend upon contagion spreading from man to man. This doctrine has very important bearings upon medical practice. It leads us to believe that the means by which we may prevent catarrh are to be found in ventilation and cleanliness, if, indeed, ventilation be not a kind of cleanliness. Experience confirms this belief. When epidemic catarrh prevails where do we find most of our patients? In those houses which are obviously the worst ventilated, even though they be the spacious houses of the rich. And where do our patients catch their catarrh? Either in houses of the kind which I have mentioned or in buildings where men most do congregate, especially in offices, shops, and churches. Large shops and stores, public museums and libraries, are ventilated as little as possible for fear of their contents being spoilt by smoke and dust. Many churches both in town and country are never properly aired for another reason—namely, because their architecture does not admit of it. Those "rich windows which exclude the light" do worse than this, they exclude fresh air. The revival of Gothic architecture has been, from the sanitary point of view, a great mistake. Our despised forefathers of the eighteenth century erected plain and simple buildings which could at least be well-aired, well-lighted, and kept warm and comfortable; nay, even the much-ridiculed churchwarden, with his brush and pail of whitewash, was a praiseworthy minister of health. Modern dwellings are no better than the churches. In the matter of domestic sanitation people have fixed their attention too exclusively upon the drainage and the water-supply; light and air are not reckoned. Many of the large red-brick houses which have been built in great numbers at the West-end of London and elsewhere during the last 25 years cannot be properly ventilated. The well of the staircase ought in every house to be a reservoir of pure air and to have an independent supply from without. But in many houses the staircase cannot be ventilated except through the rooms, and, in fact, it never is ventilated. Nor are the rooms themselves much better off: their heavily mullioned windows are designed with small regard to the transmission of light and air. The subsidiary and merely ornamental arts which do no more than please the eye are studied to the neglect of that far greater art which promotes the happiness and welfare of the whole man, the Art of Preserving Health.

The Goulstonian Lectures

ON

THE PATHOLOGY OF THE THYROID GLAND.

Delivered before the Royal College of Physicians of London on March 7th, 9th, and 14th, 1899,

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LECTURE III.[1]

Delivered on March 14th, 1899.

COMPENSATORY HYPERTROPHY.

MR. PRESIDENT AND GENTLEMEN,—The whole question of compensation and compensatory hypertrophy of organs in disease is of such great interest and practical importance to us that any facts which tend to throw light on the conditions under which they are developed are of value. In health we can by specially arranged exercises bring into operation the pathological law, that any muscle contracting intermittently against an increased resistance which it can overcome undergoes hypertrophy, and thus induce hypertrophy of the biceps or any other muscle. In some diseases our chief object is to favour and encourage compensating hypertrophy by every means in our power. In valvular disease of the heart adequate compensation in the form of "work hypertrophy" is of prime importance, the object of our treatment being to encourage and maintain its proper development and as long as possible ward off the disastrous effects of its failure. All hollow muscular organs develop compensatory muscular hypertrophy when their work is increased by some abnormal resistance to the expulsion of their contents which can be overcome by an extra effort. Other tissues also can undergo similar changes, an example of which is given by the condition of the blood in cyanosis. It has been shown by Toeniessen, Gibson,[2] and others that in the intense cyanosis of congenital heart disease the hæmoglobin is increased in amount and the red and white corpuscles are increased in number. The hæmoglobin may be increased up to 120 or 160 per cent. of the normal amount, the red corpuscles up to 9,000,000 (about double the normal number), and the white to 16,000 in each cubic millimetre of the blood. These changes may fairly be regarded as indicating a compensating hypertrophy of the blood

[1] Lectures I. and II. were published in THE LANCET of March 11th, 1899.

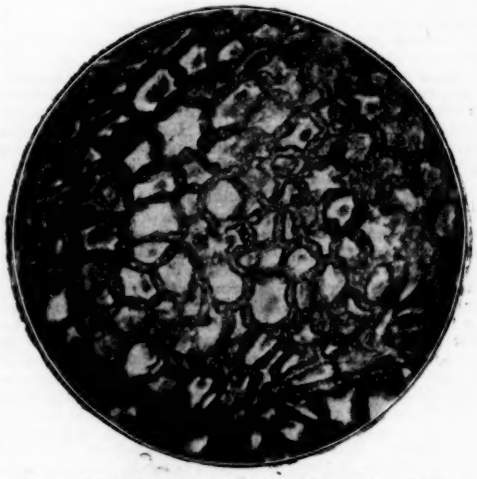
[2] THE LANCET, Jan. 5th, 1895.

which enables it to carry more oxygen in face of the adverse conditions under which the circulation is carried on. Marie regards a similar increase in the number of the red corpuscles which occurs in those who live at high altitudes as a similar compensation. The glandular organs of the body have also remarkable powers of development under the influence of appropriate stimuli, as, for example, the development of the mammary glands during pregnancy. Both secretory and excretory glands can undergo compensatory hypertrophy when a portion of the gland has been disabled by disease or design in such a manner as to throw an increased amount of work upon the remainder. The stimulus of working at higher pressure than normal here as in the heart leads to a development of a compensatory hypertrophy, such, for example, as is seen in one kidney after the removal or destruction by disease of the other.

It is important in all cases to ascertain the minute structure of organs which have thus developed a compensatory hypertrophy for it is not necessarily a simple hyperplasia or exact reproduction of the normal structure. In the kidney Larazus-Barlow[3] states that there is hyperplasia of the cells and hypertrophy of the glomeruli, and he quotes Eckhart's statement that if the hypertrophy is the result of congenital absence of one kidney there is both hypertrophy and hyperplasia of both glomeruli and tubes; if later in life one kidney is destroyed or removed hypertrophy without hyperplasia of either glomeruli or tubes is found in the other. Owing to the special anatomical position and physiological properties of the thyroid gland it affords unusual facilities for observing some of the phenomena of compensatory hypertrophy. It is now a well-known fact owing to the work of Horsley,[4] Halsted,[5] and Edmunds[6] that when a portion of the gland is removed the remainder undergoes compensatory changes in virtue of which it is enabled to supply enough secretion to prevent the appearance of the symptoms of athyroidism. The portion removed at one time may be one-half or even three-quarters of the whole gland and Halsted has shown in the dog that successive portions, if removed on three or four separate occasions, may be excised until only one-eighth or even one-sixteenth of the original gland is left without symptoms of athyroidism being developed, so great is the power of undergoing compensatory hypertrophy. Although these changes are accompanied by an increase in size the hypertrophied remainder does not attain the size of the original gland, so that weight for weight it has to do more work than the original glandular tissue. Under these circumstances it is not so surprising that the structure of a piece of the gland which has undergone compensatory hypertrophy should differ somewhat from that of the normal gland. And this we find to be the case, for when sufficient hypertrophy has developed to supply as much secretion as is necessary we do not find a simple hyperplasia of the original glandular tissue but considerable change in structure throughout. The alveoli instead of being nearly circular become irregular in outline. This change is due to the folding of the wall which projects at different points into the lumen of the alveolus. In advanced hypertrophy the lumen may appear to be star-shaped or it may be almost obliterated by neighbouring folds of epithelium coming into contact. The appearance in places may then closely resemble that of a racemose gland. The epithelial cells themselves are also altered. They are considerably increased in size, the ordinary low cubical epithelial cells being converted into tall columnar cells. The result of these two changes is that in equal areas the secreting cells are greatly increased both in numbers and size in the hypertrophied as compared with the normal gland. The colloid lying in the gland is diminished in amount and appears to be more watery in consistence than normal. This change in consistence cannot, however, be accompanied by any deficiency in the active ingredients of the secretion as it is able to prevent the onset of any symptoms of athyroidism. The appearances just described are evidently those of glandular tissue working at high pressure and just able to supply the necessary amount of secretion without storing any in reserve in the alveoli as is usual in the normal gland.

In illustration of these changes I may refer to an experiment in which I removed the whole of the left lobe and the greater part of the right from a rhesus monkey. After the operation there was slight hebetude and harshness of the voice. No other symptoms developed although the animal was kept under observation for 14 months and then was killed as it contracted general tuberculosis. A piece of glandular tissue which had developed from the small portion of the right lobe left at the operation was found, weighing 0·42 gramme. Fig. 14 shows the changes in structure which had taken place. The folding of the epithelium giving a larger secreting surface is clearly seen and in some of the smaller alveoli near the centre the consequent irregular shape of the lumen is evident. The epithelial cells have become columnar in type while the colloid is scanty and seems to be watery in consistence.

FIG. 14.



Compensatory hypertrophy of the thyroid gland of a monkey, showing plication of alveolar wall, scanty colloid and columnar epithelium.

The remarkable results which have been shown by Dr. Rose Bradford to follow the excision of a portion of the kidney and which were so well described by him in his Goulstonian Lectures last year raise the question as to whether these changes in the structure of the thyroid are due entirely to the wants of the body acting as a stimulus to the compensatory growth of the gland or whether they are in any way due to some other local or general effect of the operation itself. If the compensating growth of the one lobe takes place simply in response to a call for more secretion to make good the loss of the other lobe no hypertrophy should take place if this want is fully supplied from other sources. This point may be tested by removing one lobe of the gland and giving thyroid secretion continuously for some time and then removing the other lobe for examination. If no changes indicating compensatory hypertrophy are found in the second lobe it goes far to show that the hypertrophy develops simply as the result of an insufficient amount of thyroid secretion being present in the blood. To test this point the right lobe and parathyroid were removed from a male bonnet monkey. For the next three weeks 12 minims of thyroid extract were given in the course of each week. Then as the animal became rather emaciated the quantity was reduced to half this amount for the next five weeks. Slight myxœdematous symptoms then appeared, but they diminished on increasing the dose to 24 minims in the week; this was continued for two and a half weeks when the animal died from dysentery. The left lobe was found to be pale in colour and only weighed 0·03 gramme. No parathyroid was found attached to it. Microscopical sections showed no signs of compensating hypertrophy even in its earliest stages. In another experiment the right lobe and parathyroid were removed and one minim *per diem* of thyroid extract was given by the mouth for 16 weeks and then the left lobe and parathyroid were removed. The right lobe with the parathyroid which was removed first weighed 0·3 gramme and was found to be abnormal in structure to start with, as it resembled a hypertrophied gland in structure.

[3] Manual of General Pathology, p. 537.
[4] Brit. Med. Jour., Dec. 5th, 1896.
[5] Johns Hopkins Hospital Reports, 1896.
[6] Journal of Pathology January, 1898.

Similar appearances were found by Halsted in the thyroid gland of several healthy dogs. The occasional occurrence of such changes in apparently healthy animals is at present difficult to explain. The interesting point in this case is that after the prolonged interval of 16 weeks during which the extract was given the left lobe was found to be paler in colour and it weighed 0·25 gramme. The microscopical structure was normal and showed no signs of commencing compensatory hypertrophy. If this lobe was originally in the same condition as the right the treatment seems to have restored it to a normal condition, and if not it at any rate showed no signs of compensating hypertrophy. As far as they go these experiments tend to show that if the proper amount of secretion is supplied after the removal of one lobe compensating changes do not take place in the other.

In connexion with this part of the subject I have tried the effect of prolonged administration of thyroid extract upon the healthy thyroid gland. It is well known that parenchymatous goitres often decrease in size when treated by thyroid extract. One explanation of this result is that a partial atrophy from disuse is established when the full amount of secretion is supplied from an external source. Two experiments have been made to ascertain if any atrophic changes could be induced in the healthy thyroid gland by supplying secretion ready made, as it were, and so doing away with the normal stimulus to secretion. The thymus atrophies after the first year of life from disuse and the thyroid does so itself in old age possibly for the same reason.

A small bonnet monkey was given one minim of thyroid extract *per diem* by the mouth for 44 days and then three minims for 31 days. The thyroid gland was then removed. It looked small and pale in colour and with the two parathyroids weighed 0·11 gramme. The microscopical appearance of the gland was normal, the epithelial cells and their nuclei being stained as usual and the alveoli were well filled with secretion. In another similar experiment a male bonnet monkey was given one minim of thyroid extract for 44 days and three minims daily for 42 days. The thyroid gland was then removed and with the parathyroids weighed 0·14 gramme. The nuclei were all stained and the alveoli were well filled with secretion. There was rather more fibrous tissue in the interalveolar spaces than is generally seen in the normal gland, but not a sufficiently well-marked increase to amount to a pathological change. The glands were certainly pale in colour and light in weight and appeared to have undergone some diminution in size, but no evidence of atrophic changes was found in the microscopical specimens. Possibly if larger doses had been given for a longer period some more definite change in the structure of the gland might have been found.

GOITRE.

The pathology of goitre is a subject of much importance for the disease is still endemic in this country in the valleys which drain the Pennine Range of hills east and west from the Border as far south as the Peak in Derbyshire. Time will not permit me to discuss the origin of endemic and sporadic goitre, but I wish to draw attention to the interesting effects which have followed the treatment of simple parenchymatous goitre by thyroid extract. At first sight such treatment may seem somewhat superfluous, but experience has shown, and to that of others I can add my own, that this method of treatment frequently leads to a notable diminution in the size of the goitre. Adenomata, cystic adenomata, and other new growths are not influenced by the treatment though the parenchymatous enlargement which often accompanies them may be diminished. In the treatment of goitre it is advisable to begin with 10 minims of liquor thyroidei each night. In the course of a few days if the pulse is not accelerated beyond 90 or 100 this dose may be given twice and at the end of a week thrice daily. If well borne the dose may be still further increased. The treatment should be continued for three or four weeks to give it a fair trial and longer if the goitre continues to decrease in size. In several cases in which the general enlargement of the gland has been sufficient to cause dyspnœa by compressing the trachea, so that an operation had to be considered, the gland has been reduced to two-thirds or even one-half of its former size and all the symptoms of pressure removed and with them the necessity for an operation. The beneficial effects of this treatment may be due to the iodine which is present in combination with a proteid in thyroid extract, for iodine has long been used with good results in the treatment of goitre. We have seen that the healthy thyroid of the monkey showed some signs of diminution in size under the same treatment and I would suggest that the decrease in size in goitre may be due to part of the enlarged gland passing into a resting condition and consequent diminution in size if there is not an actual disuse atrophy as a result of the treatment.

EXOPHTHALMIC GOITRE.

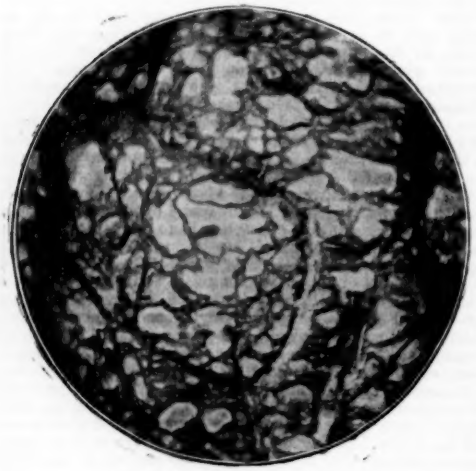
Exophthalmic goitre, with its many varying phases, is a disease of great interest from several points of view. The various clinical types in which it comes before us and the great difficulties in treatment which it often presents render a true solution of the problem of its pathology of the greatest importance. The circulatory and nervous systems have each in turn been considered to be at fault, and it is only recently that attention has been drawn to the important part which is played by the thyroid gland in the pathology of the disease. The central and sympathetic nervous systems have been carefully examined in a considerable number of cases; in some they have been found quite normal, in others various lesions have been described, but these have varied in different cases and on the whole appear to be rather secondary than primary in origin. I shall not describe the various lesions which have been found, as I have already elsewhere[7] discussed their relative importance. The lesions found in the thyroid gland are far more constant in character than any yet described in the nervous system and it is the most obviously diseased organ to be found in a case of exophthalmic goitre. In nearly all cases of exophthalmic goitre there is a palpable enlargement of the thyroid gland. On looking through my case-books I find notes on 70 cases of exophthalmic goitre which I have seen during the last nine years in the North of England where the disease is not uncommon. Of these cases eight were men and 62 were women. All the eight men had enlargement of the thyroid; of the 62 women all except three had enlarged thyroid glands. Taking both sexes together we find that only 4·3 per cent. of these cases had no goitre. It has been shown by Maude that in some cases enlargement of the gland may be present at one time and not at another, so that even in those three cases which were only seen a few times there may have been some enlargement at some other time during the course of the disease which had escaped observation. In any case, in 95 per cent. of my cases there was either enlargement of the gland at the time when the case was seen or there was a distinct history of enlargement at an earlier stage.

The enlargement of the thyroid gland in exophthalmic goitre is as a rule uniform. In cases of long duration it may be irregular in shape and consistence owing to the development of fibrosis leading to the formation of irregular strands and masses of hard fibrous tissue in some parts of the gland. The veins on the surface are large and their walls are thin. In well-developed cases the goitre is very vascular and the arteries are dilated and tortuous, indicating that there was a liberal supply of blood during life. On section the cut surface presents a uniform appearance; it is lighter in colour and exudes less colloid than a normal gland. The microscopical appearances have been very clearly described by Greenfield,[8] Stewart and Gibson,[9] Edmunds,[10] and Abram.[11] The general appearance is that of a gland in a state of great secretory activity and has been aptly compared by Greenfield to that of the mammary gland during lactation. The number of alveoli is not only increased by the total increase in size of the gland but in equal areas more secreting tissue is seen than in the normal gland. In many places the lumen of the alveolus is irregular in outline owing to folds of the alveolar wall covered with epithelium projecting into it, so that even when the gland is but slightly enlarged there is a marked increase in the amount of the secretory epithelium. The lumen of the alveolus is in consequence diminished in size in some cases to a considerable extent. The actively secreting part of the gland is thus increased at the expense of the storage room which is so ample in the normal gland. The epithelium which lines the alveoli and covers these folds is changed in type, for the cells instead of being flat or cubical are tall and columnar. There is less secretion to be seen lying in the

[7] Twentieth Century Practice of Medicine, vol. iv.
[8] THE LANCET, Dec. 16th and 23rd, 1893.
[9] Edinburgh Hospital Reports, vol. i.
[10] Transactions of the Pathological Society of London, 1895.
[11] THE LANCET, Nov. 16th, 1895.

alveoli than in health. This diminution in quantity is partly due to the decrease in the amount of storage room. In addition to this, however, the alveoli are only partially filled, an appearance which suggests that there is a more rapid removal of the secretion from the gland than in health. The colloid is also more watery in consistence and it stains less deeply than normal. Eosine does not stain it at all and Renant considers that it resembles fœtal colloid more nearly than that found in the healthy adult. These changes are well shown in two specimens from cases which have been under my care. The section shown in Fig. 15 was taken from the right lobe of the thyroid gland

FIG. 15.



Exophthalmic goitre. Low power.

of a married woman, aged 32 years, who had suffered from attacks of palpitation for several years. There had been enlargement of the thyroid for a year, exophthalmos for nine months, and progressive emaciation for eight months. The pulse varied from 120 to 140. As medical treatment failed to arrest the progress of the disease the right

FIG. 16.

Exophthalmic goitre, showing plication of alveolar wall, scanty colloid and columnar epithelium. High power.

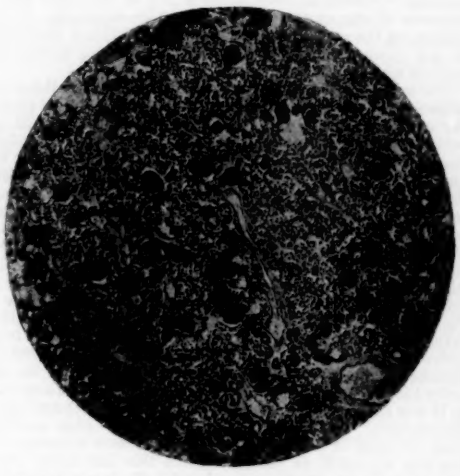
lobe was removed by Mr. F. Page. Unfortunately the patient died suddenly an hour after the operation. This specimen shows the general appearance of the gland under a low power, the plication of the alveolar wall, and the diminution in the amount of secretion in the alveoli. Fig. 16 and Fig. 17, which were also photographed by Dr. R. A. Bolam, were taken from sections prepared by my research clerk, Mr. J. Muirhead. The specimen shown in Fig. 16 was taken from a man, aged 30 years, who had suffered from acute exophthalmic goitre for some four or five months. There had been goitre, great nervousness, exophthalmos with retraction of the upper eyelids and von Graefe's sign, frequent pulse, rapid respiration, emaciation, sweating, and diarrhœa. In addition he had an attack of appendicitis followed by the formation of a small abscess which contributed to the early fatal termination. This specimen shows an alveolus under a high power in which the changes described are well-marked. There are several deep folds in the wall, the columnar type of the epithelium is clearly seen, and only a small amount of lightly stained secretion is lying in the irregularly shaped lumen.

From the above description and illustrations it will be seen that the structure of the gland in exophthalmic goitre resembles that in compensatory hypertrophy in a remarkable manner. In both there is the increase in the secreting structures, as shown by the plication of the alveolar wall; in both the epithelium is changed from a cubical into a columnar type, while the secretion stored in the alveoli is less in quantity and more watery in consistence. We know that the changes in compensatory hypertrophy are an indication of increased activity, so that it is fair to infer that the changes found in exophthalmic goitre show that hypersecretion is going on. For additional reasons which we shall now consider the most rational explanation of the complex symptoms of this disease appears to be that they are due to an excessive formation and absorption of the secretion of the thyroid gland which may or may not be altered in composition and to the constant presence of this excess in the blood and its action upon the metabolism of the tissues generally, but more especially of the nerve centres in the medulla. According to this view exophthalmic goitre is the opposite condition to myxœdema, the former being the result of excess as the latter undoubtedly is of lack of thyroid secretion in the blood. This is supported by the strong contrast which is presented by the symptoms of the two diseases, a contrast which is nearly as marked as that between the small fibrous and atrophied gland of myxœdema and the enlarged hypertrophied gland of exophthalmic goitre. Associated with the former we have increase of weight, stolidity, subnormal temperature, dryness of the skin due to diminution of cutaneous secretion, with increase of electrical resistance and slowing of the pulse, while with the latter we find emaciation, nervousness, normal or raised temperature, moist skin due to increase of secretion, with diminished electrical resistance, and acceleration of the pulse. We may conveniently express the relationship of myxœdema and exophthalmic goitre in their various degrees of severity in the following diagrammatic manner. If we take 100 as representing the normal amount of thyroid secretion of health then 75 per cent. is probably about the amount of secretion found in these cases of early thyroidal fibrosis with slight myxœdema to which I have already alluded. If half the glandular tissue is destroyed and only 50 per cent. of secretion is formed the symptoms will be moderate; if 25 per cent. the symptoms will be well-marked; and if none at all is formed they will be severe, as in the advanced case shown in Fig. 10 (see THE LANCET of March 11th, p. 676). In the reverse way in exophthalmic goitre 125 per cent. of secretion would be present in a slight case, 150 per cent. in a moderate one, 175 per cent. in a well-marked one, and 200 per cent. in a severe case.

Percentage of thyroid secretion in the blood.	Degree of severity of the symptoms.
200 per cent.	Severe exophthalmic goitre.
175 ,, ,,	Well-marked ,, ,,
150 ,, ,,	Moderate ,, ,,
125 ,, ,,	Slight ,, ,,
100 ,, ,,	*Health.*
75 ,, ,,	Slight myxœdema.
50 ,, ,,	Moderate ,,
25 ,, ,,	Well-marked ,,
—	Severe ,,

In the case of myxœdema these percentages are in all probability approximately correct. In exophthalmic goitre, however, we have no means of ascertaining how much is actually formed. It may amount to much more than double the normal quantity in a severe case so that these percentages are purely relative and must not be taken to indicate the actual amount of secretion present in the blood. Another interesting point in the relationship between the two diseases is the repeatedly observed fact that recovery from exophthalmic goitre may be followed by myxœdema, while as far as I am aware exophthalmic goitre has never been observed to develop in a patient already suffering from myxœdema. In some cases the symptoms of exophthalmic goitre diminish as those of myxœdema develop; in others there is an interval of good health between the disappearance of the exophthalmic goitre and the onset of the myxœdema. In a case recorded by Baldwin[12] exophthalmic goitre developed in 1887 and recovery took place the following year. Two years after, in 1890, myxœdema developed which three years later was successfully dealt with by the thyroid treatment. In a similar case recorded by Joffroy and Achard and quoted by Möbius[13] the exophthalmic goitre existed for 23 years and then subsided to be followed by myxœdema. After death the nervous system was found to be quite normal and the thyroid gland in an advanced stage of fibrosis with atrophy. It thus seems evident that the development of thyroidal fibrosis in exophthalmic goitre by lessening the over-activity of the gland leads to a subsidence of the symptoms which, if the fibrosis and atrophy progress far enough, are replaced by those of myxœdema. Fig. 17 shows a section of the gland

FIG. 17.



Exophthalmic goitre, showing diminished number of alveoli and large amount of young cellular fibrous tissue.

from an old-standing case of exophthalmic goitre. In this the alveoli are much diminished in number and between them there is a large amount of young cellular fibrous tissue. No symptoms of myxœdema were present at the time this patient died, but it is evident that if the fibrosis had advanced much further symptoms of myxœdema would have developed. While these changes are taking place in the gland the symptoms may pass from those of severe exophthalmic goitre through all the stages mentioned in the table to those of severe myxœdema. One or two cases have been recorded in which the symptoms of myxœdema are said to have coexisted with those of exophthalmic goitre. The reasons for asserting the coexistence of the two diseases seem to be rather slender and to be largely founded on the presence of an irregular brawny swelling together with the symptoms of exophthalmic goitre. I have occasionally seen a firm subcutaneous swelling in some parts of the body in exophthalmic goitre but it certainly was not myxœdematous. It is important to have such cases carefully reported so that more information may be obtained on this point. The persistence for a time of a few symptoms of exophthalmic goitre in a case of long duration which was passing into myxœdema is not unlikely, for the effects of the long-continued action of an excess of secretion on the nerve centres in the medulla may easily remain for a time even after the thyroid had begun to atrophy, just as the effects of the action of lead or the toxins of diphtheria on the nervous system persist long after the original cause has ceased to act.

The physiological effects of thyroid secretion in large doses are of special interest in this connexion. Exophthalmic goitre, though rare in the lower animals, has been observed in the horse, the cow, and the dog, so that if the right cause is brought into operation there should be no great difficulty in producing the disease in one of these animals. As we are ignorant of the causes of the change in structure and activity of the thyroid gland in exophthalmic goitre attempts can only be made to reproduce the symptoms we believe to be secondary to the excessive activity of the thyroid. This might be done either by grafting an excess of thyroid gland tissue into an animal or more certainly by feeding it with large quantities of thyroid secretion or by injecting it beneath the skin. Ballet and Enriquez[14] by feeding dogs with the thyroid glands of sheep produced distinctive symptoms in three out of six cases. These symptoms were elevation of temperature, tachycardia, tremors, conjunctivitis, emaciation, and in one animal quite distinct exophthalmos. Still more important are the results which have been observed to follow large doses of thyroid extract in man—a condition of thyroidism which seems to be more easily produced in those who have recovered from myxœdema than in those who have normal thyroid glands. It may develop rapidly if large doses are given or more slowly if smaller but still excessive doses are given for a long period. The earliest and most common symptom is increased frequency of the pulse. The patient complains of palpitation and the heart beats violently—100, 120, or 130 times a minute. A fine tremor of the hands is often present and the skin is flushed and moist. If the large doses are continued for some time emaciation also takes place. In addition to these symptoms elevation of temperature, restlessness, loss of sleep, polyuria, albuminuria, glycosuria, partial paraplegia, sensation of heat, and diarrhœa, all of which are occasional symptoms of exophthalmic goitre, have been recorded. In one remarkable case Béclère[15] observed exophthalmos and rapid respiration, in addition to other symptoms among those already mentioned, in a woman who had suffered from myxœdema and had taken 92 grammes of thyroid gland in 11 days.

Some remarkable toxic symptoms have been observed in some cases by Horsley and Rodocanachi,[16] Paul,[17] and other surgeons to follow partial removal of the enlarged thyroid gland. The most common symptoms which have been observed are fever, great frequency of the pulse, amounting to 150 or even 180 beats in the minute, rapid respiration, and great restlessness. In some of the cases the termination has been fatal at the end of a few days. As far as I am aware such symptoms have not been observed after a total thyroidectomy, so that they are not a result of the operation itself. The symptoms have occurred in cases of exophthalmic or soft parenchymatous goitre after removal of one lobe of the enlarged gland, and especially when it has been much handled or squeezed during the operation. In several cases a profuse flow of thyroid secretion has been observed to take place after the operation from the divided isthmus into the wound. The symptoms are similar to those which occur in acute cases of exophthalmic goitre and in thyroidism artificially produced in the manner already described and are evidently due to absorption from the wound of thyroid secretion poured out from the cut surface of the gland or to a large quantity of it being squeezed during the operation into the lymphatics and so into the blood stream. This absorption of the secretion is a source of real danger in operations for goitre and especially in cases of exophthalmic goitre. If, however, the gland is handled as little as possible during the operation, the cut surface is sealed by the cautery

[12] THE LANCET, Jan. 19th, 1895, p. 145.
[13] Die Basedow'sche Krankheit, p. 63.
[14] La Semaine Médicale, xiv., 66, 1894.
[15] Ibid., 1894, p. 101.
[16] THE LANCET, Oct. 9th, 1897.
[17] Brit. Med. Jour., Jan. 1st, 1898.

and a free exit is provided for any secretion which may find its way into the wound, such symptoms will in all probability but seldom arise.

It is now well known that thyroid extract has a bad effect on patients with exophthalmic goitre. Under its influence the pulse becomes more frequent and the other symptoms are increased. In some instances where other treatment had been followed by marked improvement the administration of thyroid extract has been followed by a relapse into the former condition. In my opinion it should never be given in exophthalmic goitre as it is only adding fuel to the fire. The results of surgical treatment of exophthalmic goitre undertaken with the object of reducing the amount of secreting tissue by removal of one lobe, or of inducing atrophy by ligature of some of the arteries which supply the gland, are of great interest. Unfortunately, the operation itself though sound in principle is at present by no means free from risk. The steady improvement, however, which has resulted in many cases in which it has been successfully performed affords still further evidence that the symptoms of exophthalmic goitre are due to the over-activity of the thyroid gland.

It is a fact of considerable interest that along with the enlargement of the thyroid gland in exophthalmic goitre other ductless glands may be increased in size. The thymus gland is very often enlarged; in all the cases recently examined at St. Thomas's Hospital Dr. H. Mackenzie[18] has found the thymus persistent and enlarged, the microscopical structure being normal. Exophthalmic goitre and acromegaly are sometimes found to occur together. I have recorded two examples of this and collected records of three others.[19] In acromegaly the pituitary gland is enlarged and the enlargement seems to be analogous to that of the thyroid in exophthalmic goitre, so that we have the remarkable fact that all these three ductless glands may be simultaneously enlarged. We know no explanation of this but it suggests that possibly some common factor may be the cause of the enlargement. That some association exists between the thyroid and pituitary glands is further shown by the enlargement which takes place in the latter when the former is removed or disabled by disease.

These facts all indicate that in the treatment of exophthalmic goitre attention should be directed to the thyroid gland. Time will not permit me to discuss the question of operative treatment, but there can be little doubt that removal of part of the enlarged gland is a rational method of treatment and when the risks of the operation are diminished it should be more frequently employed in severe cases in which medical treatment has failed to do good. Of medical treatment much has been written. In my own cases inunction of red iodide of mercury ointment over the goitre and belladonna given in large doses internally so as to check the hypersecretion of the gland have been of most service. If the palpitation is excessive convallaria has proved more useful than any other member of the same group of drugs. Where there has been great nervousness the bromides have done good. In only one case have I seen decidedly good effects from taking thymus. In this case three tablets of dried thymus were taken each day for nine months, for the last six and a half of which the red iodide of mercury was used as well. As a result of this treatment the pulse-rate, which varied from 132 to 143, fell to 84; the thyroid gland, which had been considerably enlarged, returned to its normal size; the tremor became much less; and the exophthalmos was diminished.

In conclusion, Mr. President and gentlemen, allow me to thank you for the kind help which you have given me by your attention in my endeavour to place before you some of the facts which help to explain the function of the thyroid gland and the practical uses to which such knowledge can be put in the treatment of disease, and I trust that the wishes of the founder of this lectureship have thus been carried out in the spirit, if not in the actual letter of his bequest.

[18] Allbutt's System of Medicine, vol. iv., p. 503.
[19] Edinburgh Medical Journal, 1897, p. 170.

THE BRISTOL MEDICAL MISSION.—The annual meeting of the Bristol Medical Missionary Society was held on March 9th under the presidency of the High Sheriff (Mr. C. Wills). The honorary secretary reported that during 1898 7536 out-patients had been treated and 1880 patients had been visited at their homes. The total income for the year was £732 and the expenditure amounted to £695.

ABSTRACTS OF

Three Lectures

ON

THE JOINTS OF MAMMALS CONTRASTED WITH THOSE OF MAN.[1]

Delivered before the Royal College of Surgeons of England on March 6th, 8th, and 10th, 1899,

BY F. G. PARSONS, F.R.C.S. ENG.,
HUNTERIAN PROFESSOR.

LECTURE I.

Delivered on March 6th, 1899.

IN this lecture the temporo-maxillary and shoulder-joints as well as the articulations in connexion with the clavicle were treated. In the temporo-maxillary joint special stress was laid on the fact that in man the external lateral ligament of the jaw ran downward and backward and was attached below to the posterior part of the outer side of the neck of the condyle. The occasional appearance of a post-glenoid process in man's skull was pointed out as well as the fact that the long axes of the condyles ran backward and inward. In the lower Primates it was shown that the glenoid cavity became more and more flattened by the non-appearance of the eminentia articularis or pre-glenoid process, while the post-glenoid process was constantly present and was situated only at the outer part of the back of the cavity in the catarrhine monkeys. In the lemurs, on the other hand, it was directly behind the centre of the condyle and in these animals the long axis of the condyle was quite transverse.

The suggestion was made that the obliquity of the transverse axis of the condyle in man was due to the fact that in the higher Primates the post-glenoid process checked the backward movement of only the outer part of the condyle. The backward direction of the external lateral ligament was found to be present in monkeys as in man, and it was shown that when the mouth was opened this ligament became tense and checked the backward movement of the neck of the condyle; the jaw was then converted from a hinge into a lever of the first class and the condyle moved forward on to the eminentia articularis without the necessity for any action of the external pterygoid muscle. The various mechanisms of the jaw in the different orders of the Mammalia were then dealt with in detail, and among other things it was shown that the inter-articular meniscus was present in all mammals until the Edentata were reached in descending the scale. In this order the structure was shown to be absent in the armadillo as it was also in the Tasmanian devil (Dasyurus) among the Marsupialia. In the Monotremata it was also wanting. This absence of the meniscus among lower mammals the lecturer regarded as telling against the likelihood of its representing the quadrato-jugal bone of lower vertebrates and he inclined to the belief that it was simply a pad adapting the joint to various different kinds of movement. In reviewing the clavicular articulations it was pointed out that when a clavicle was present it was connected with the dorsal side of the presternum and that in a generalised mammal there was usually a rod of cartilage which connected the two bones. In this rod an ossified nodule was frequently found and this the lecturer regarded as the homologue of the sternal epiphysis of the clavicle of the Primates. Synovial joints might be developed between the cartilaginous rod and the sternum and in some instances between it and the bony clavicle. The inter-articular fibro-cartilage of man was shown to be a constant structure in the Primates and the possibility of this being a mere fibrous ingrowth from surrounding tissues to adapt the joint to various kinds of movement was discussed. The coraco-clavicular ligament, it was stated, was single below the higher Primates and in some animals—e.g., Dasypus and Bradypus—was very long. The acromio-clavicular joint existed only when the clavicle was fully ossified, otherwise the bony ends were connected by fibrous

[1] These lectures will be published in full in the Journal of Anatomy

tissue which in the case of the three-toed sloth (Bradypus) had entirely disappeared.

In the shoulder the coraco-humeral ligament was described as being peculiar to the Primates and the lecturer's experience made him think that it had little or no morphological connexion with the distal end of the pectoralis minor. The three gleno-humeral ligaments of man were called attention to and it was stated that the inferior one was unsatisfactory and difficult to recognise. The tendon of the biceps in man was free in the joint cavity, but in every other mammal in which it was intracapsular a reflection of synovial membrane passed from its ventral border to the ventral part of the capsule. The lecturer stated his opinion that the upper of the three gleno-humeral ligaments in man, lying as it did anterior (ventral) to the tendon of the biceps, was the remains of the reflection which in other mammals connected the biceps with the capsule. The middle gleno-humeral ligament of man was shown to be more or less persistent all through the mammalian class, sometimes, as in Rodentia, being very prominent and sometimes indistinguishable, but always when present running from the attachment of the biceps tendon to the lower part of the lesser tuberosity of the humerus. A ligament corresponding to it in position was shown in the shoulder-joint of the Monotremata and it was pointed out that this ligament was of great functional importance in the mechanism of the joint of those animals.

LECTURE II.

Delivered on March 8th, 1899.

IN this lecture the elbow, wrist, and hip joints were dealt with. In the elbow the presence of an oblique ligament passing from the internal condyle to the radius just behind the tubercle was noticed and the name of "oblique radio-humeral ligament" was suggested for it. It lay superficial to the capsule and checked pronation. It was frequently found among the Primates, Carnivora, and Rodentia. A distinction was drawn between the elbow used only for support and that used for prehension. The ungulate elbow was taken as a type of the former and it was noticed that the radius lay entirely in front of the ulna, that its head was transversely elongated, that there was no orbicular ligament, and that the lateral ligaments were both attached to the radius. The human elbow was taken as a type of the form adapted to prehension and in reviewing the various orders of mammals it was noticed how sometimes one and sometimes the other of these two primary forms of the joint were approached. An orbicular ligament was always found when pronation to the extent of a quarter of a circle was present; it seemed to be a condensation of the connective tissue surrounding the head of the radius. In the wrist-joint the extreme diminution of the lower end of the ulna into the human styloid process was noticed and it was pointed out that in a generalised mammalian wrist such as was found in most of the lower Primates, the Insectivora, Carnivora, and Rodentia, the lower end of the ulna was received into a cup-shaped cavity formed by the cuneiform and pisiform bones, and that the joint cavity between these two bones communicated with that of the wrist. The generalised mammalian arrangement of ligaments was an "X" on the palmar side and an oblique plane on the dorsal. The palmar "X" was formed by decussating radio- and ulno-carpal ligaments; the latter was always the more superficial and passed from the ulna to the scaphoid; the former ran from the radius to the semilunar and cuneiform. In man the ulno-carpal ligament was suppressed. The dorsal ligament in most mammals had the same oblique fibres from the radius to the cuneiform bone which were found in man. In the lower Primates it was noticed that the joint became divided into two lateral portions by an antero-posterior partition which grew from the palmar part of the capsule; this was also seen in other mammals. The triangular fibro-cartilage of man was found continuous with the inter-osseous membrane in the hedgehog and the possibility of this meniscus being the thickened lower end of the membrane was discussed. The wrists of the Cheiroptera, Ungulata, and Monotremata were specialised, the effect in each case being a firm hinge-joint, though this effect was gained by different means in the three orders. In the hip-joint the three special thickenings of the capsule, the ilio-, ischio-, and pubo-femoral ligaments of man, were drawn attention to, and it was shown that in the lower Primates these were less well seen and that in other mammals they were not present at all. The lecturer had been unable to find any evidence supporting the theory that the ilio-femoral ligament represented a degenerated scansorius or gluteus quartus muscle; he regarded the ligament in question as a thickening of the capsule due to the gradual assumption of the erect posture. The presence of the ligamentum teres was next drawn attention to and it was shown to be absent in the orang, many Insectivora, the Pinnipede Carnivora, a few of the Ungulata, some of the Edentata, and both examples of the Monotremata. The lecturer expressed his ignorance of the factors which determine the presence or absence of this structure, but stated that it did not necessarily vary with the presence or absence of the gleno-humeral ligament of the shoulder. In the Cape hyrax and the armadillo the ligament was shown to be continuous with the pubic portion of the capsule instead of being free in the joint, while in some animals, such as the horse, goat, hyrax, and Cape jumping hare, it was continuous through the cotyloid notch with extra-capsular structures—a fact tending to confirm Sutton's view that the ligamentum teres was the remnant of an extra-capsular muscle.

LECTURE III.

Delivered on March 10th, 1899.

IN this lecture the knee- and ankle-joints were described. In dealing with the lateral ligaments of the knee it was shown that in almost all mammals the fibres of the external lateral ligament showed a twisting in such a way that those attached posteriorly to the femur became superficial as they descended and finally were the most anterior at their attachment to the fibula. In some animals a twist in the opposite direction was evident in the internal lateral ligament. The low attachment of the internal lateral ligament was shown to favour rotation and in the bat's knee, which was a perfect hinge, it was pointed out that the lateral ligaments were attached just below the joint cavity. In the armadillo, which had very free rotation of the knee, the internal lateral ligament was attached to the middle of the shaft of the tibia. The oblique ligament of Winslow was stated to be practically a human characteristic. Five varieties of the ligamentum mucosum were demonstrated: (1) in which it was quite unconnected with the femur, as in the lemur; (2) in which it was feebly connected with the femur, as in man; (3) in which it formed an antero-posterior partition between the two condylo-tibial articulations, as in many monkeys and the otter; (4) in which it completely subdivided the knee into three joints, two condylo-tibial and a trochleo-patellar, as in the three-toed sloth (Bradypus) and the Ornithoryhnchus; and (5) in which it subdivided the knee into two unequal joints, the condylo-tibial of one side being shut off from the rest as in the brocket deer (Cariacus).

The most primitive arrangement of the semilunar cartilages seemed to be that of the Monotremata in which both were attached to the tibia anteriorly and to the femur posteriorly. In the generalised mammalian knee the external cartilage was attached to the internal condyle by a perfectly separate ligament. In the lower Primates this cartilage formed a perfect ring, while in man the original attachment to the femur persisted as an oblique band behind, and merged with, the posterior crucial ligament. In the fruit bat, in which the knee was a perfect hinge, it was pointed out that the semilunar cartilages were absent, while in the insectivorous bat (Plecotus), which had slight rotation of the knee, they were very feebly developed. It was further shown that the bat's knee bent forward owing to a complete twisting round of the hip. A curious mechanism of the knee in many of the Marsupialia was demonstrated, enabling these mammals to extend their knees by an approximation of the fibula to the tibia, compensating them for the absence of a bony patella. In the ankle the presence of the anterior fasciculus of the external lateral ligament was shown only to occur in the higher Primates and the serial homology of the middle fasciculus with the dorsal ligament of the wrist was seen by tracing it down through the mammalian series. In the Marsupialia a semilunar fibro-cartilage was present between the external malleolus and the astragalus and evidence showing that this was derived from the external lateral ligament was given.

ABSTRACT OF THE

Lettsomian Lectures

ON

SOME OF THE CLINICAL ASPECTS OF GRANULAR KIDNEY

Delivered before the Medical Society of London on Feb. 6th and 20th, and March 6th, 1899,

BY SAMUEL WEST, M.D OXON., F.R.C.P. LOND.,

ASSISTANT PHYSICIAN TO ST. BARTHOLOMEW'S HOSPITAL; SENIOR PHYSICIAN TO THE ROYAL FREE HOSPITAL, &C.

LECTURE III.[1]

Delivered on March 6th, 1899.

SYMPTOMS.

GENTLEMEN,—Granular kidney may exist for a long time without appearing to affect the health or producing symptoms. When symptoms appear, no matter what, the disease is far advanced and in its later stages. The symptoms are multifarious and unless there be intercurrent nephritis in no way of themselves suggest renal disease, so that they are very misleading and the true nature of the case is often overlooked. The symptoms fall into two groups, the cardio-vascular and toxæmic. Speaking generally, the symptoms occur in the order in which they are ranged, the cardio-vascular first and the toxæmic subsequently, though they may both be present together. The cardio-vascular are important because they often cause death earlier than might otherwise occur. The toxæmic always develop if the patient lives long enough. They depend upon the wasting of the kidney, become manifest when it has reached a certain degree, and progress with it *pari passu*.

The cardio-vascular symptoms are more or less mechanical or accidental. The cardiac are summed up in heart failure. The vascular fall into two groups: the first is formed by hæmorrhage and its results; and the second by chronic degenerative affections, especially in the nervous system, the result of imperfect nutrition through the diseased vessel. Heart-failure is often the first symptom to cause anxiety. These symptoms are usually gradual in onset but may come on suddenly. The pain though usually slight may be severe enough to be called angina. Cardiac symptoms are, however, not constant even where the heart is greatly hypertrophied or the valves diseased. Acute pericarditis belongs rather to the toxæmic group. It is always a very serious complication and even where it does not of itself cause death it is a warning that the end is near. It may produce few symptoms and be detected only by physical signs, but the evidence of granular kidney is usually obvious enough. It may be the first sign of ill-health.

The vascular lesions produce three sets of symptoms: (1) those due to rupture and consequent hæmorrhage; (2) those which result from nutritive disturbances in the parts supplied by the diseased vessels (this is especially met with in the central nervous system and in the eye); and (3) besides these it is necessary to refer to aneurysm and that not only of the small vessels but of the main trunks.

I believe the connexion of granular kidney and aneurysm of large vessels is a new point, but it is clearly shown in the post-mortem statistics from St. Bartholomew's Hospital. There is no reason why, if a vessel is diseased enough to rupture, it should not first lead to an aneurysm.

HÆMORRHAGE.

Hæmorrhage may take place in almost any part of the body. It is in the brain that its most serious effects are produced. Post-mortem statistics prove the remarkable frequency with which granular kidney is found associated with cerebral hæmorrhage. Of course, many patients with cerebral hæmorrhage do not die from it but are left with paralysis. Where the patient dies from apoplexy post-mortem examination may show the centre of the brain ploughed up by a large hæmorrhage of the common kind; but sometimes without any extensive laceration of the brain a large number of minute hæmorrhages are found of that peculiar kind known as miliary aneurysms. Where these small hæmorrhages are not numerous they may produce no pressure signs but only localised symptoms of varying character according to their position. In the medulla a very small hæmorrhage of this kind may lead to death or to localised nuclear paralysis of special nerves. Epistaxis is common and may be the first symptom of disease and its importance be missed. Even in the young granular kidney must not be disregarded as a cause of repeated epistaxis.

The next most important group of cases is that in which blood is found in the urine. This form of hæmaturia has led to frequent mistakes, as, for example, to the diagnosis of calculus in the bladder, for which operation has been suggested and performed. The hæmorrhage is not often copious, but in slight amount it is common and recurrent. To this recurrent hæmaturia experience leads me to attach considerable diagnostic value. Of hæmorrhage from other parts in connexion with granular kidney I have myself recorded one case of hæmatemesis. I know of one of hæmorrhage from the bowels. Hæmoptysis is described, but I have never myself actually met with it; a similar hæmorrhage, though not in large amount, is described from the pharynx.

I have recently had to deal with a case in which very troublesome and persistent hæmorrhage occurred from the uterus. In the last stage of granular kidney the patient may pass into an almost hæmophilic condition in which slight, though continuous and almost uncontrollable, oozing takes place from various parts of the body, from the gums, nose, tongue, lips, vagina, or from any wound or scratch in the skin.

DEGENERATIVE LESION.

The next group of cases to which I wish to refer is that in which, as a consequence of arterial disease, degenerative changes result in various tissues. The most delicate of these is the nervous system; to this Gull and Sutton long ago drew attention; the subject has not since they wrote received the attention it deserves. Bond has drawn attention to the remarkable frequency of granular kidney in post-mortem examinations on the insane.

The toxæmic symptoms fall into two groups: in the one they are of acute onset and great severity and usually lead rapidly to death. In the other they are of more gradual onset and of longer duration and of less apparent severity, and of a very indefinite character. They are respectively called "acute" and "chronic" uræmia, but as the groups stand in strong contrast with one another it would be well if different terms were employed to denote them. For the acute cases "uræmia" in its ordinary acceptation might be retained. For the chronic group an account of its varied and indefinite symptoms "chronic renal toxæmia" would be the better term.

There are three main theories of uræmia, which may be termed the "retention" theory, the "perverted metabolism" theory, and the "defective internal secretion" theory. There is no proof so far of an internal secretion in the kidney. The retention theory is now discredited, so that the third theory only remains—viz., that which refers the symptoms only to perverted metabolism. There are many different extractives and they have different physiological actions, and thus the symptoms produced might vary according as one or other of these extractives predominated. According to this theory the poisons are produced in the body and by processes not differing essentially from those which take place in health. The kidney plays its part only so far as it makes the elimination of the poison defective. Uræmia would thus be brought into close relation with other conditions in which the normal metabolism of the body is perverted. Clinically we know that the symptoms of uræmia are closely simulated by many conditions which at first sight appear to have nothing to do with one another—e.g., the typhoid state, the last stages of malignant disease. So again in the later stages of cirrhosis hepatis, diabetes mellitus, of Addison's disease or myxœdema, and, indeed, in almost all slowly dying persons. It is for this reason that I prefer to call uræmia "acute and chronic renal toxæmia" so as to bring it into the proper relation with other allied clinical conditions. Symptoms resembling uræmia may thus arise under conditions with which the kidney may have nothing to do. When, as in uræmia, the kidney plays the chief part it is very tempting to refer

[1] Lectures I. and II. were published in THE LANCET of Feb. 11th and 25th, 1899, respectively.

uræmia to defective internal secretion, for it is certainly not due simply to defective elimination. If, then, we are thus led to associate the symptoms of chronic uræmia with chronic extractive poisoning—i.e., with the presence of abnormal amounts of extractives in the tissues and the blood—we are tempted to refer the acute symptoms which often develop with so little warning to defective elimination by the kidney and we might thus associate acute uræmia with the condition of the cells in the kidney—in granular kidney—just as we do in acute nephritis.

It is to the chronic toxæmic form that most of the symptoms belong which bring the patient suffering with granular kidney under medical observation. They may be of such a kind as to point to almost any part of the body as the seat of disease rather than the kidney and may thus lead to frequent errors in diagnosis. As the disease advances the general nutrition may be profoundly affected even to the extent to suggest malignant disease. The gastro-intestinal symptoms are often pronounced and may be very misleading. Obstinate dyspepsia, especially if associated with pain, might suggest ulcer of the stomach and this might be attributed, if there were much cachexia, to malignant disease. Vomiting is often a source of difficulty, for it is very obstinate and does not stand in relation to the taking of food. When to the vomiting retinitis is added confusion with cerebral tumour is only to be expected. Morning vomiting, which is not rare, might suggest pregnancy and I have seen cases confused with both these conditions.

The symptoms in connexion with the bowels are not as a rule so puzzling. Diarrhœa is common with any form of kidney disease, but there are cases in which diarrhœa is practically the only symptom, extremely obstinate, and almost uncontrollable. The dyspeptic symptoms are often associated with cramps. I have seen several cases in which cramps were the chief complaint. Cramp leads naturally to the consideration of gout. The occurrence of chronic kidney mischief as the result of long-standing gout is well recognised, but it is quite possible that the opposite relation exists in many cases—i.e., the patients are gouty because they have granular kidney. Gout naturally suggests lead-poisoning, for these three affections—gout, granular kidney, and lead-poisoning—stand in close relation to one another. The close association of chronic lead-poisoning and granular kidney is interesting as supporting the view that granular kidney is the result of the circulation of some toxic substance in the blood, which excites cirrhosis in the kidney with all its results, just as alcohol produces cirrhosis in the liver. On the other hand, it is also possible, considering that all persons who work with lead do not develop granular kidney, that the opposite relation may exist—viz., that they suffer so much from lead symptoms just as others do from gout because their kidneys are granular already.

CACHEXIA.

Patients with granular kidney may for a long time preserve their normal appearance of health and even when the signs of granular kidney are well marked, but as a rule as the kidney disease advances the nutrition suffers greatly. The cachexia of granular kidney is characterised by anæmia and asthenia and to some extent by loss of flesh, but emaciation is rarely carried to that degree which is met with in advanced malignant disease. The cachexia is often out of all proportion to the other symptoms or may even exist alone. In some cases the anæmia predominates and in others the asthenia. The asthenia is often extreme, so that the patient can hardly stand or walk without assistance. It is in connexion with the nervous system that some of the most interesting conditions arise. Headache, which is so common a symptom, often occurs in such severe paroxysms as to closely resemble migraine. The vomiting is no doubt often central or nervous, for it stands in no relation with food and is frequently periodical. The dyspnœa, which may be paroxysmal, is very often cardiac and occasionally due to bronchitis and emphysema. Any attack of the nature of true spasmodic asthma is very rare and I must confess myself very sceptical as to its existence. I have certainly never met with it. Fits are, of course, the common form in which acute uræmia manifests itself, but epileptiform convulsions are not rare as one of the early symptoms of the late stage independent of uræmia. The fits occur in groups, two or three a day possibly, and last for a day or two; they may then disappear and not recur for weeks or months, when a second bout of fits occurs with as little cause as before, and so on.

In connexion with fits may be placed the curious attacks of cerebral irritation which are not at all uncommon. They may take the form of attacks of general nervous irritability, of emotional excitement, or of almost maniacal delirium. Of skin eruptions in granular kidney little is said. The cases fall into two groups according as there is general œdema or not: 1. Rashes associated with œdema. These are for the most part erythematous in nature, transitory in duration, produce but few symptoms, and when localised have but little clinical importance. If widespread the prognosis is less favourable and becomes the more unfavourable the more general the eruption is. Sometimes the rash is of a papular, lichenous character and is then generally met with on the backs of the thighs and arms. Eczematous eruptions are not at all uncommon, if there be much œdema, where the parts lie in contact with each other. The following is my own series of cases: 1. Erythema. This occurred in a patient, aged 42 years, who was under treatment for uncontrollable diarrhœa. 2. Pityriasis rubra. Of this I have seen two instances—one in a man, aged 47 years, and the other in a woman, aged 42 years. 3. Dermatitis exfoliativa. 4. A general eruption. Rashes of this kind in granular kidney seem almost invariably to end fatally. All my cases also died, usually not long after the eruption appeared, but in the two instances referred to the rash disappeared and the patient lived for a few months.

The symptoms of acute uræmia have by no means that definite and uniform character which seems to be often assumed. The cases really vary very much from one another, almost as much as do cases of so-called diabetic coma. Fits and coma are the two most characteristic symptoms and yet patients may not have fits, or, at any rate, no marked convulsions, and they need not be comatose. A patient may be comatose without any fits, or at most with but very slight twitching, and the condition may then closely resemble apoplexy. Patients in such a state nearly always die, but now and then recovery may occur. In other cases the condition almost resembles that of narcotic poisoning. In others, again, symptoms of the most profound collapse develop. The patient seems to have been suddenly poisoned and presents symptoms very much like those met with in acute ptomaine poisoning. Whatever the form acute uræmia may take the prognosis is as grave as it can be. If any of the forms has a less grave significance than the others it is perhaps that in which there are epileptiform convulsions, for uræmic fits may end in recovery now and then in granular kidney, as they much more frequently do in acute nephritis.

The most interesting fact about uræmia in the course of granular kidney is that it may develop so suddenly and with little or no warning in the midst of apparent health. Granular kidney is not generally recognised as a cause of sudden death. Yet, on the other hand, we know that though death may be sudden, yet in the absence of acute uræmia or serious hæmorrhage life may last for many years.

TREATMENT.

The objects we should have in view in treatment are: 1. To prevent the disease getting worse if possible and to relieve the damaged organ in every way possible. 2. To guard against the accidents specially likely to occur—e.g., failure of the heart and rupture of vessels. 3. To counteract or relieve symptoms as they arise. Of drugs I do not know of any more useful than nitrate of pilocarpin given in small doses two or three times a day by the mouth or in urgent cases sub-cutem. There is one noteworthy fact about pilocarpin in chronic renal disease—viz., that it often does not produce the sweating which under normal circumstances and in similar doses it causes, and yet without the sweating its effect is striking.

There remains, however, one line of treatment to which I wish more particularly to refer, for it has not so far been investigated as fully as it deserves—viz., the treatment of chronic renal disease by means of renal extracts. I have already said that there is no positive evidence at present of the existence of an internal secretion in the kidney; yet the cachexia which develops in chronic renal disease is not at all unlike that which is met with in Addison's disease or even myxœdema. Granular kidney also presents other resemblances with these diseases in that the grave symptoms do not arise until the organ is very considerably diseased. There can be no doubt clinically that the late symptoms of granular kidney do depend upon the disappearance of the glands and it is therefore

not at all improbable that the kidney has an internal secretion, though absolute proof is not yet forthcoming. In some few cases in which I have used the renal extracts they have been followed by an increase in the amount of urine and an improvement in the general condition. The use of renal substance extracts is still in a purely experimental stage. Judging by the analogy of myxœdema, it would be in the cases of chronic renal cachexia only that we should look for striking results, and this requires early and correct diagnosis. In acute uræmia there is so little time to act that recourse must be had to other and more active measures.

The task set before me is finished. My choice of granular kidney was inspired by the hope that what had interested me might prove of interest also to others. I trust I may not have misjudged. I have not hesitated to express my own opinions, even at the risk of appearing egotistic, though I trust with sufficient modesty to escape the charge of dogmatism. On a subject so full of difficult and contentious questions I cannot expect that my views will commend themselves to all. Yet defined opinions challenge criticism and criticism tends to advance knowledge.

PARALDEHYDE AS A RESPIRATORY SEDATIVE.

BY WILLIAM MACKIE, M.A., M.D. ABERD.

SINCE I first suggested the use of paraldehyde in spasmodic asthma,[1] now over six years ago, I have had frequent occasion to administer the drug both in purely functional respiratory troubles and in dyspnœic conditions arising from various causes, in many cases even where complicated with grave organic lesions. In no case where I have used it have I ever had occasion for regret, but, on the other hand, have always been pleased, and often more than pleased, with the result. I am glad to find that Dr. Macgregor[2] has found it equally satisfactory in the cases in which he has used it. I may say that the suggestion of its use in asthma has not been altogether a dead letter. Dr. Hearder,[3] of West Riding Asylum, Wakefield, in 30 cases of asthma, many of which were complicated with severe organic disease, found that it came quite up to the level of expectation and I have on several occasions had private inquiries from medical men as to the propriety of prescribing it in particular cases. To those I have uniformly replied that paraldehyde is a safe drug and may be freely given under almost all circumstances. So assured of its value in dyspnœic conditions generally have I become that I have long ceased to take notes of particular cases, but the two following, both of which were complicated with grave organic lesions, come fairly within the range of memory.

CASE 1.—A woman, aged 34 years, with chronic kidney disease (large white) for some years in the last stages suffered from gradually increasing œdema of the lungs with corresponding dyspnœa, restlessness, and eventually sleeplessness. After failure of the admissible hypnotics (sulphonal being one) and sedatives in what was considered legitimate doses, one drachm of paraldehyde given diluted in water repeatedly gave three or four hours' sleep without perceptibly affecting the other symptoms but to all appearance with much temporary relief.

CASE 2.—A spare but plucky woman, aged 50 years, had from the month of June of last year onwards much dyspnœa with bronchial spasm and some expectoration. She had had to my knowledge for at least six years valvular disease of the heart, both aortic and mitral, but this was the first appearance of anything like marked dyspnœa. The case was in the circumstances one of some anxiety and a consultant who saw the case at an early stage "ventured to hope" that the attack might prove a temporary one, but neither of us had really much hope of eventual recovery. Many drugs were tried with little result. At last the following formula was hit on: one drachm of tincture of strophanthus; eight minims of solution of nitro-glycerine; 36 minims of solution of strychnia; one and a half drachms of paraldehyde; and one and a half ounces of infusion of calumba. One drachm of the mixture in water to be taken occasionally but not oftener than once in six hours. This from the first gave marked relief. During an illness of six months the woman clung tenaciously to the "little bottle" and from time to time had the mixture repeated. For the last two months she has been able to be about again and for that time has required nothing. It might be doubted whether the paraldehyde in the above mixture was to be credited with the result, but from close observation of the case I am strongly of opinion that it was the paraldehyde which gave the relief.

As with most drugs of the kind I have found paraldehyde when frequently exhibited in the same case eventually fail to produce results in ordinary doses, but I am decidedly of opinion that this tendency is much less marked in the case of paraldehyde than of many other drugs. In some cases, however, no such tendency has been observed after prolonged use. I have never seen fainting on its exhibition, as occurred in some of Dr. Macgregor's cases, but I have usually prescribed it mixed with equal parts of syrup of orange peel or syrup of hemidesmus and always ordered it to be given freely diluted with water. Where tinctures are present, as noticed by Dr. Hearder, it becomes fairly miscible in water with other drugs.

Elgin, N.B.

[1] Brit. Med. Jour., vol. i., 1893, p. 65.
[2] THE LANCET, Feb. 11th, 1899.
[3] Brit. Med. Jour., vol. i., 1899, p. 725.

FURTHER STATEMENT AS TO RESULTS OBTAINED BY OPERATION FOR CANCER OF THE BREAST.

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THREE years have now elapsed since I published in the Lettsomian Lectures and subsequently in THE LANCET[1] the results which I had up to that time obtained by extensive operation in cases of cancer of the breast, the operations being carried out in accordance with the pathological and anatomical facts contained in the researches of Heidenhain and Stiles. At that time I was able to mention 61 cases which had been operated upon at periods varying from one month to six years; in 21 of these from three to six years had elapsed since the date of the operation. As three years and more have now elapsed (from three to nine years) since these 61 cases were operated upon it seems to me desirable to state as far as I can what is their present condition. I need not reprint the list of cases here, the numbers which I give are those under which the cases are described in the former paper in THE LANCET.

In the first place, let us take those cases in which at the time of my last publication three years or more had elapsed since the date of the operation. These were 21 in number, and it will be remembered that at that time recurrence had taken place in nine, while on the other hand 12, or 57 per cent., had remained well for over three years. Of the latter, 11 were at that time alive and well and one had died from acute bronchitis, without any trace of recurrence of the disease, three years and five months after the date of the operation. At the present time nine of these patients are, I know, still alive and well. One I knew of up till about a year ago, when she was also well, but she has left her former address and I have not yet been able to trace her. One only has died, and the cause of death is stated to have been hæmorrhage from cancer of the intestine; apparently there was no recurrence in the region of the breast. The following are the cases, giving the time which has elapsed since the operation.

No. 1 (of former report). Alive and well; nine years. 4. Reported to have died from cancer of the intestine about six years after the operation. 5. Alive and well; eight years and three months. 6. Alive and well up to a year ago (seven years); since lost sight of. 11. Alive and well; seven years and three months. 13. Alive and well; seven years and two months. 14. Alive and well; seven years and one month. 15. Alive and well; seven years and one month. 16. Alive and well; six years and 10 months.

[1] THE LANCET, Feb. 15th and 22nd and March 14th, 1896.

19. Alive and well; six years and one month. 21. Alive and well; six years.

The results thus remain very much the same as before. In only one case has the disease reappeared in those who were well three years ago and from what I hear it is quite possible that this may have been a fresh cancer altogether and not a recurrence of the one removed from the breast. I may add that quite recently a patient on whom I had operated in October, 1889, came to the hospital for another trouble altogether and was quite well as far as any sign of cancer was concerned, and still remains so; and if this case be added to the above list my percentage of successes remains practically the same as in my former paper.

Let us take next the cases in which at the time of my last publication three years had not yet elapsed since the operation. These were 40 in number, and at that time 10 had shown signs of fresh disease (it may be remembered that one of these was really an inoperable case, and that in one I only assumed from what I was told that there was a recurrence; further, apart from the inoperable case, several of them were very bad cases to start with), one died from the operation, two had been lost sight of, and 27 had not then had any recurrence. Let us trace the fate of these 27 cases.

No. 26. Cannot trace her. 27. Alive and well; five years and three months. 30. Alive and well; four years and 11 months. 31. Alive and well; four years and 10 months. 32. Alive and well; four years and 10 months. 35. Alive and well; four years and eight months. 37. Died from internal recurrence about two and a half years after the operation. 39. Alive and well; four years and four months. 40. Alive and well; four years and three months. 42. Alive and well; three years and nine months. 43. Alive and well; three years and seven months. 44. Alive and well; three years and seven months. 45. Alive and well; three years and seven months. 46. Alive and well; three years and seven months. 47. Alive and well; three years and six months (a very bad case). 48. Died from recurrence. 49. Died from recurrence. 50. Alive and well; three years and six months. 51. Died from influenza and acute pneumonia two and a half years after the operation. No sign of external or internal disease. 53. Died from recurrence internally about 18 months after operation. 54. Alive and well; three years and four months. 55. Alive and well; three years and four months. 57. Died from recurrence. 58. Died; recurrence (?). 59. Alive and well; three years and two months. 60. Died 18 months after the operation; recurrence in liver (a very bad case). 61. Alive and well; three years and one month.

Thus, of the 27 patients who had had no recurrence at the time of my last publication, 18 are still alive and well, and one died without recurrence. In other words, of the 37 patients who lived after the operation and the fate of whom can be traced 19, or over 50 per cent., remained free from recurrence, 16 certainly had recurrence, one probably died from recurrence, and in one I do not know the result. This gives us a total in the 61 cases of 30 patients who remained free from recurrence, 29 of these having passed the three years limit; one died from the operation and three have been lost sight of. The results therefore in cases where they are ascertainable are about 51 per cent. of successes—i.e., of patients remaining alive and well for over three years.

As regards the value of the three years limit—or, indeed, of any time limit—it is interesting to note that of the 11 cases alive and well at the time of the last report (three years or more after the operation) only one has shown signs of fresh disease and it is doubtful whether that was a recurrence or a new development. Further, of the 20 patients alive and well at the time of the last report, one year or more (from one year to six years) after the operation, 17 still remain well. This shows the great chance of freedom which patients alive and well a year after the operation have gained by the thorough procedure which I advocate.

It may be of interest if I add a further list of the patients operated upon up to the end of 1897 which brings the totals up to 99. I need not give the more recent cases as up to a year the chances of recurrence still remain considerable, while after a year they are comparatively slight, as has just been shown.

I may say that the statements as to prognosis in this list represent the impression left on my mind at the conclusion of the operation and which I put down at the time. It refers essentially to the state of matters found as regards the breast, glands, &c., and was hardly influenced by other considerations such as the age of the patient, the duration of the disease, &c.

The result of these 38 fresh cases in which from one to three years have elapsed since the operation is the following:—26 patients remained well without recurrence; one refuses to say how she is but appears well; in one the result is unknown; one died suddenly about a fortnight after the operation; seven died from recurrence; one (in whom there had been recurrence) has probably died; and one (in whom also there had been slight recurrence) has been operated upon and appears well. The total is 99 cases in which from one to nine years have elapsed since the operation and of these 56 certainly have as yet had no recurrence.

It will be quite evident from the nature of the cases described that there has been no selection of cases from the point of view of obtaining good results by operation. A number of the patients operated upon were, to my mind, cases in which it was very doubtful whether an operation should be performed or not and I could easily by selection of cases have obtained a very much higher percentage of successes. I had only to refuse to operate on the cases in which the prognosis seemed to me to be bad as indicated in the above list and the result would have been over 80 per cent. of successes. But such selection, however it might help to establish the operation, would not have been fair to the patients and in several instances where I have thought that early recurrence must take place I have been agreeably surprised to find that the patients remain well. As a matter of fact I have only refused to operate upon patients in whom it was evident that removal of the disease was quite impossible either on account (1) of the presence of internal deposits, or (2) of deposits externally in situations which were irremoveable (as, for example, in the ribs, in glands behind the sterno-mastoid, &c.), or (3) of extreme weakness. Short of that I think that every patient should have the chance of operation even although the local disease seems to be so extensive that the probability of the existence of internal deposits is very great and, as I have just said, I have been agreeably surprised in several instances to find that the patient remains well.

I need not again describe in detail the operation which I perform, as I have already done so on more than one occasion, but there are some points with regard to it on which I should like to lay stress.

Exploratory incisions.—One not unfrequently meets with cases in which, either on account of the early period of the disease and the consequent small size of the growth or on account of the great size of the breast, the deep-seated position of the growth and the difficulty in manipulating it, or, again, on account of the very diffuse and extensive nature of the growth, there is considerable doubt as to the diagnosis. Under such circumstances an exploratory operation is of course proposed, and considering the great importance of early operation in cancer an exploratory operation should be at once proceeded with instead of waiting to see what the effect of external or internal remedies would be. The operation, however, should not be an exploratory *incision* into the swelling. If an incision is made into a cancer the cancer cells escape from the alveoli in which they are present, soil the knife, the fingers of the operator, the skin of the patient, and the surroundings generally, and the result may very possibly be that the wound made afterwards with the view of removing the breast and glands may be infected by cancer cells which have escaped from the incision. This is not by any means a purely theoretical danger. I have already referred to cases of auto-infection in my Lettsomian Lectures and I have since on more than one occasion had similar experiences, more especially where glands have burst during removal and where the result has been a diffuse cancerous infection of the wound in spite of the greatest care having been taken to clear out all the material which had escaped from the gland. Hence, in the case of an exploratory operation the suspected swelling should be *excised along with an area of apparently healthy tissue around* and it should only be cut into after its removal from the body and from the vicinity of the operation. It is best, if it can be managed, that the incision into the swelling should be made by someone who is not directly associated with the operation afterwards, or if it be made by the surgeon that he should not touch it with his fingers and should afterwards discard the instruments which have been employed. Should the swelling

SECOND SERIES OF CASES OF CANCER OF THE FEMALE BREAST, 1896 and 1897 (VERIFIED BY MICROSCOPICAL EXAMINATION), IN WHICH THE FIRST OPERATION WAS PERFORMED BY MR. WATSON CHEYNE.

No.	Age.	Date of operation.	Nature of case.	Result.
62	37	11/3/96	Extensive scirrhus of right breast below and internal to nipple. Adherent to skin and muscle. Two other nodules in breast. Numerous glands in axilla and also in posterior triangle of the neck. Swelling (fibro-adenoma) in left breast. Noticed for three years. Very bad prognosis.	Recurred locally and generally within a year. Inoperable.
63	40	8/4/96	Scirrhus behind the left nipple of the size of a two-shilling piece; adherent to skin but not to the deeper parts. Several glands of moderate size in the axilla. Noticed for five months. Fair prognosis.	Alive and well; two years and 10 months (a cyst was removed from the right breast in August, 1898, but there was no sign of cancer anywhere).
64	42	15/4/96	Seen six weeks before with large scirrhus in right breast, but as the patient was just going to be confined the operation was deferred. On returning the swelling had increased in size, there were large glands in the axilla, and there was a suspicion of a deposit in the liver. Disease noticed for ten weeks. Very bad prognosis.	Died from cancer of the liver six months later.
65	51	29/4/96	Scirrhus of left breast about the centre, involving skin and muscle. A good many glands. Noticed for several months. Bad prognosis.	Alive and well; two years and nine months.
66	43	6/5/96	Pretty large scirrhus behind nipple. Glands only slightly affected. Noticed four months. Good prognosis.	Alive and well; two years and nine months.
67	61	2/6/96	Scirrhus at outer part of breast. Some small glands. First noticed two months ago. Good prognosis.	Alive and well; two years and eight months.
68	42	3/6/96	Very diffuse thickening of right breast occurring very rapidly. I was uncertain of the diagnosis and therefore excised a portion of the thickened tissue. Even with the naked eye I was still not sure of the diagnosis as between tubercle and cancer. Microscopical examination showed a rapidly-growing cancer. The breast and glands were therefore removed some days after the exploration. Very bad case.	Recurred in sternum and internally in the pleura and mediastinum. Died one year and two months after the operation.
69	71	10/6/96	Small scirrhus at the outer side of left breast. Several small glands. Noticed two months. Good prognosis.	Continued sickness and retching after the operation for several days and a good deal of flatulent distension. No rise of temperature. Stitches removed on June 19th. Patient allowed to get up on a couch on June 20th. Shortly after getting up became livid and collapsed; recovered when put back to bed. At 8.30 P.M. on the same day was seized with severe dyspnœa and died in two minutes. On post-mortem examination there was a clot in the right ventricle extending into the pulmonary artery but not adherent. There was no sign of pulmonary embolism. There was old-standing tuberculous disease of the lungs. There were healed cavities in the lungs and adhesions between the lungs and the chest wall. The colon was much distended. There was extensive diffuse thickening of the wall of the sigmoid flexure and rectum, so that the lumen of the bowel was in parts very narrow. There was no sign of cancer internally.
70	49	10/6/96	Scirrhus above the right nipple of the size of a Brazil nut. Puckering of skin. Numerous small glands. Noticed 18 months. Fair prognosis.	Alive and well; two years and seven and a half months.
71	67	23/6/96	Small scirrhus in upper and outer quadrant of left breast. Good many glands in axilla. Noticed a month. Good prognosis.	Alive and well; two years and seven months.
72	55	23/6/96	Large cancerous mass in centre of right breast, adherent to the skin. A good many moderate-sized glands. Noticed for six months. Bad prognosis.	Alive and well; two years and seven months.
73	60	1/7/96	Small scirrhus at outer side of right breast. A good many small glands. Noticed five weeks. Good prognosis.	Alive and well; two years and seven months.
74	49	19/9/96	Scirrhus at outer part of left breast of the size of a Brazil nut. Several small glands. Only noticed a fortnight ago. Good prognosis.	Alive and well; two years and four and a half months.
75	40	2/10/96	Extensive diffuse scirrhus of left breast with large glands in axilla. Only noticed recently. Very bad prognosis.	Recurrence externally and internally; died in about nine months.
76	49	9/11/96	Small scirrhus to inner side of the right nipple. Two or three glands. Noticed for six months. Good prognosis.	Alive and well; two years and three months.
77	40	17/11/96	Very extensive diffuse scirrhus of the breast. Axilla full of glands and some in the posterior triangle of the neck. Very bad prognosis.	Recurrence in abdomen; died four months later.
78	53	15/12/96	Swelling in left breast just above nipple of the size of half-a-crown. A few small, hard glands in axilla. Noticed for two years. Doubtful prognosis.	Alive and well; two years and one and a half months.
79	43	16/12/96	Diffuse cancer in right breast. Large glands in axilla. Arm painful and swollen. Noticed 18 months. Bad prognosis.	Small nodule noticed in region of scar last November. Removed. Patient looks well and has no further sign of recurrence.
80	58	16/12/96	Large tumour in left breast with large glands. Noticed for six weeks. Bad prognosis.	Died from recurrence internally (lungs, &c.) one year and nine months later.
81	59	16/12/96	Large scirrhus involving upper and inner segment of right breast, adherent to muscle. Large glands in axilla. Noticed for 10 months. Bad prognosis.	Alive and well two years and one month.
82	58	5/1/97	Large scirrhus of left breast at upper part. Glandular affection only slight. Doubtful prognosis.	Alive and well; two years and one month.
83	35	2/1/97	Largish tumour towards centre of breast. Several small glands. Bloody discharge from nipple noticed for a year and swelling for several months. Doubtful prognosis.	Alive and well; two years.
84	46	4/2/97	Diffuse scirrhus of left breast. Several nodules in the breast. Axilla full of glands. Glands also removed from the posterior triangle of the neck, but apparently not diseased. Very bad prognosis.	Alive and well; two years.
85	72	10/2/97	Scirrhus at lower part of left breast ulcerated, glands moderate in size and few. Noticed some months. Doubtful prognosis.	Alive and well; one year and 10½ months.

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No.	Age.	Date of operation.	Nature of case.	Result.
86	39	11/3/97	Very extensive diffuse scirrhus of left breast. Glands only slightly affected. Bad prognosis.	Has become a "Christian scientist" and "does not search for disease." Has seen no medical man since the operation. Will not say anything as to her health but leads an active life. Looks well and there is presumably not much the matter with her.
87	40	15/3/97	Small scirrhus in left breast. Several small glands in axilla. Noticed for a few weeks. Good prognosis.	Alive and well; one year and 10½ months.
88	65	16/3/97	Small scirrhus in left breast and small glands. Noticed a week ago. Good prognosis.	Alive and well; one year and 10½ months.
89	49	14/4/97	Scirrhus of the size of a walnut in lower and inner part of left breast, adherent to pectoral. Small glands in axilla. Noticed four months. Fair prognosis.	Alive and well; one year and nine and a half months.
90	51	27/6/97	Large mass in left breast and large glands in axilla. Noticed six months. Bad prognosis.	Died from cancer in the liver about 11 months later.
91	61	1/7/97	Small scirrhus in upper part of right breast, adherent to muscle. Glands small. Noticed six months. Good prognosis.	Alive and well; one year and seven months.
92	50	3/7/97	Tumour of the size of an egg in upper part of right breast, adherent to skin. Glands not much affected. Noticed two years. Doubtful prognosis.	Has left former address and cannot trace her.
93	58	3/7/97 10/7/97	Scirrhus in both breasts; on the left side, large, ulcerated, and adherent to the muscle; on the right side a small mass. Glands in both axillæ, largest on the right side. The left breast noticed for 10 months. The breasts removed at a week's interval. Bad prognosis.	Alive and well; one year and seven months.
94	47	9/7/97	Small tumour in breast and small glands. Good prognosis.	Alive and well; one year and seven months.
95	42	14/7/97	Fairly large scirrhus in upper part of left breast. Glands noticed for five months. Good prognosis.	Died from recurrence in mediastinum and pleura 14 months later. No external recurrence. Post-mortem examination showed numerous masses of cancer in both lungs varying in size from a pea to a two-shilling piece. Left lobe of the liver also diseased. Double aortic disease.
96	64	18/10/97	Largish mass in centre of breast. A good many glands. Noticed five months. Doubtful prognosis.	Alive and well; one year and three and a half months.
97	45	13/11/97	Diffuse cancer at outer part of left breast and a smaller nodule towards the inner side. Many glands, but small. Noticed nine months. Good prognosis.	Alive and well; one year and two and a half months.
98	40	18/11/97	Small scirrhus of right breast and a few glands. Noticed two months. Good prognosis.	Alive and well; one year and two and a half months.
99	60	24/12/97	Small scirrhus behind nipple. Large glands in axilla. Noticed six months. Doubtful prognosis.	Alive and well; 13 months.

turn out to be a cyst or a patch of mastitis the excision which has been carried out is the best possible procedure and, on the other hand, should it be a cancer there is less risk of infecting the subsequent wound by excision than by incision. It is of course possible that, even where the tumour is excised as described, lymphatic vessels containing cancer cells may be cut across, but the cells in these lymphatic vessels are few and as a rule more adherent than in the original growth, and they are therefore less likely to be spread over the surface of the wound. Nevertheless, it is well in all cases after exploratory operations to take special precautions against the subsequent infection of the wound and when a tumour has been removed and the bleeding has been stopped a small sponge should be stuffed into the wound which is then closely stitched up. The skin, the hands of both the operator and the assistant and the skin of the patient should again be thoroughly disinfected as at first, and the instruments used should be laid aside and not again employed for an operation till they have been thoroughly boiled.

Removal of skin.—One of the most important parts of the operation is the free removal of skin. This should in the first place be carried out quite independently of the question of how the wound is to be closed afterwards, otherwise one is very apt not to take enough skin away. All the skin over the breast proper should be taken away, however small the growth, and where the tumour lies to one side of the breast special incisions must be made around it in order to get well wide of it. In the accompanying figures I have represented some of the incisions which should be employed in cases of tumours situated in different parts of the breast (see Figs. 1 to 5). In these figures the cross indicates the position of the cancer and the dotted lines the lines of incision in each case. The figures speak for themselves but I may note that they are drawings of the virgin breast and that in a large pendulous mamma the lines would be much further apart. The best way of determining the upper line in the latter case is to raise the breast and see where the fulness begins above and make the line of incision about an inch above that unless where the cancer lies towards the upper part when the incision must be in the form shown in Fig. 4.

I believe that in the free removal of the skin lies one of the chief reasons why I have had so seldom local recurrence after my operations. And, further, not only should the skin be freely removed in the manner represented, but the skin incisions when made should not go straight down to the muscle. After the skin incisions have been mapped out, the skin and just sufficient fat to enable it to retain its vitality should be dissected up and the muscular fibres should not be exposed till just below the clavicle above, beyond the middle line in front, over the origin of the abdominal muscles below, and over the edge of the latissimus dorsi muscle behind. The fat with the outlying lobules of the mamma and the lymphatics and vessels contained in it are thus separated from the skin and are then removed along with the fascia or muscle beneath. Another advantage of this free undermining of the skin which is necessary in order to remove the outlying lobules of the breast is that one can generally succeed, possibly with a little extra undermining in places, in bringing the edges of the skin together with the employment of some force. In some cases I have had to skin-graft the surface or part of the surface left, and the results obtained by skin-grafting are most excellent; but in the majority of cases I succeed, in spite of the free removal of skin which I advocate, in stitching up the whole wound. No doubt at first there is some compression of the side of the chest from the skin which is drawn so tightly over it, but in the course of a few weeks the skin gradually accommodates itself and in three or four months the feeling of tightness and the actual tightness of the skin have gone.

Removal of the breast.—What has just been said as to the method of dissecting up the skin indicates to what extent the breast should be removed and I need only remind the reader that the breast extends far beyond any part that can

be felt by the fingers, and to remove the breast only as far as one can feel the edge of it, as has been lately suggested, would be to leave breast tissue all around the area of the operation.

Removal of deep fascia.—None of the pectoral fascia or the fascia over the muscles must be left behind in the area of the

FIG. 1.

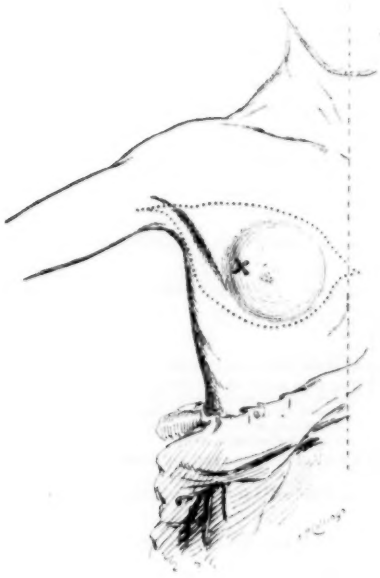
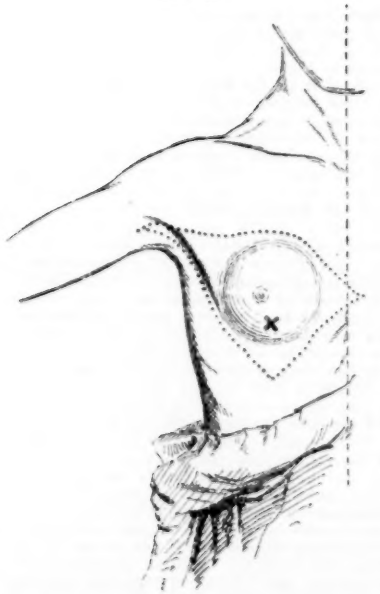


FIG. 2.



wound. If the whole muscle is not taken away a superficial layer of it at least must be dissected off so as to insure the proper removal of the fascia and the lymphatic vessels which run in it.

Removal of muscle.—It is about the question of the removal of the pectoralis major muscle that the main controversy arises and the chief advocate of the removal of the whole of the pectoralis muscle, at least of the whole of the thoracic origin of the muscle, is Halsted of Baltimore. In fact, it is practically only in this point that his operation differs from mine. I remove the lower part, say half of the muscle, in all cases—that is to say, all

FIG. 3.

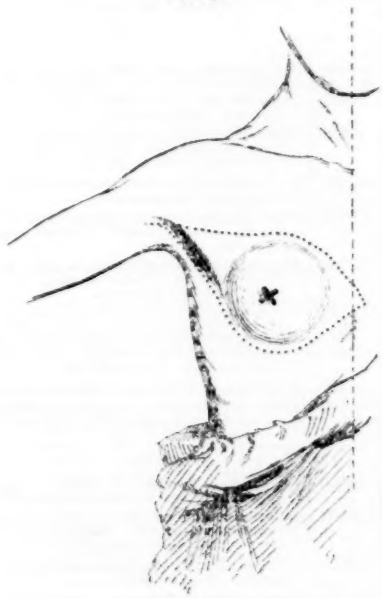
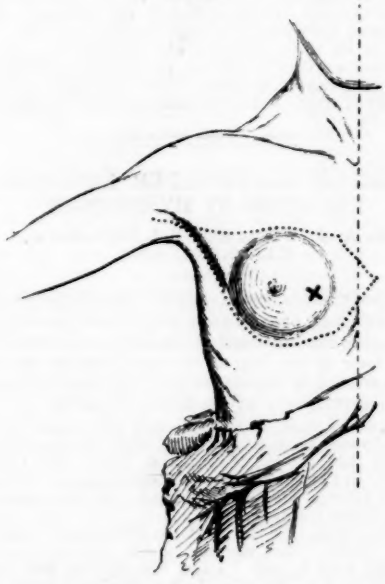


FIG. 4.

the muscle which lies behind the cancer from a little above the cancer down to its lower edge; and I only take away the whole of the muscle, or even the whole of the pectoral origin of the muscle, where there is evident disease of the muscle itself. Halsted, on the other hand, removes the pectoral origin of the pectoralis major in all cases, his reason for

doing so not being so much the removal of diseased tissues as with the view of opening up the axilla fully so as to get away all the glands. Indeed, Halsted goes further and not only removes the pectoralis major but also the pectoralis minor, or at least he divides the pectoralis minor and turns it aside. From the point of view of clearing the axilla I consider that the removal of the whole of the pectoralis major muscle and more especially of the pectoralis minor muscle is quite unnecessary, and I am afraid that the tendency may come to be to attach too much importance to the removal of muscle and too little importance to the removal of the outlying lobules of the breast and of the skin in these operations. In my own experience when the lower half of the pectoralis major muscle has been taken away it is quite easy to completely expose the axilla and the removal of the pectoralis minor muscle is quite unnecessary for this purpose. The fascia over the pectoralis minor muscle should of course be removed, as well as that over the pectoralis major, and when it has been detached from the upper and lower edges of the muscle, the muscle which is quite narrow where it passes over the axilla can be pulled upwards and downwards so as to afford a free view of the contents of that space. After detaching the fascia over the under surface of the pectoralis major it can be lifted up so

FIG. 5.



that one can see quite up to the clavicle, and then the costo-coracoid membrane, the fat over it, and the fascia over the pectoralis minor can be removed and one can see right up to the apex of the axilla. The pectoralis minor can be hooked down and one can see behind it at the upper part, and hooked up and one can see behind it at the lower part and thus the whole of the axilla can be easily cleared. I think that my results fully justify my contention that it is unnecessary to remove the whole of the pectoralis major muscle and the pectoralis minor in all cases; in fact, my results are practically the same as those obtained by Halsted.

Removal of glands.—The thorough clearing of the axilla is of course an absolutely essential part of this operation. When the lower part of the pectoralis major muscle with the overlying breast has been detached and turned forward, the fascia is dissected off the serratus magnus muscle along with the superficial fibres of that muscle and then separated from the latissimus dorsi and thus the whole of the fat and glands in the lower part of the axilla are raised in one mass up to the level of the vessels. The breast then being allowed to hang over the side, the pectoralis major and minor muscles are held out of the way and the fat is dissected downwards and inwards from the upper part in front of the vessels and nerves till the vein is exposed. The sheath of the vein is then opened and stripped off from the arm up to the apex of the axilla and then the fat and glands below are also detached. In this way the whole of the glands in front of and below the axillary vein are removed and there only remain the glands and lymphatics which run up behind the vessels towards the posterior triangle of the neck. The vessels and nerves must therefore be lifted up and this mass of fat and glands lying in the triangular space between the vessels in front, the scapula outside, and the chest wall inside, should also be taken away.

Another question which has to be considered is whether and when it is necessary to clear out the posterior triangle of the neck. The lymphatic infection in cases of breast disease follows two lines; in the one case, and that most commonly, the infected glands run up in the immediate neighbourhood of the axillary vein and generally towards the pectoral side of it to the apex of the axilla and thence they pass on to the root of the neck in front, and then probably into the anterior mediastinum; a second course which the lymphatic vessels take is upwards in the fat behind the vessels to the posterior part of the posterior triangle of the neck. This is, as a matter of fact, a decidedly less frequent direction than the former; in fact, in a recent paper Halsted, who now always removes the fat and glands from the posterior triangle of the neck and has them carefully searched microscopically, states that only in about 34 per cent. of the cases in which this has been done has he found evidence of disease in that region. Hence it is clear that it is not always necessary to remove the glands from the posterior triangle of the neck, and as a matter of fact the rule which I follow is the following—assuming, of course, that there is no enlargement to be felt there before the operation. I do not clear out the posterior triangle of the neck unless I find that in the fat behind the vessels running up in the direction of the posterior triangle there are enlarged glands. In that case I assume that the course of the lymphatic disease will tend towards the posterior triangle and that therefore it ought to be cleared out; but where I find no evidence of disease in the fat and glands running up behind the vessels I do not think that it is necessary to prolong the operation and to increase the shock to the patient by opening up the posterior triangle of the neck and, as a matter of experience, I have hardly ever seen a recurrence in the glands of the posterior triangle of the neck.

Another question which arises out of this is how far the presence of infected glands in the neck is a contra-indication to operation at all. Halsted himself does not admit that it is a contra-indication—in fact, he looks forward to a time when not only will the breast and the triangles of the neck be cleared out but also the anterior mediastinum. For my own part I am inclined to doubt whether it is worth while operating on a patient in whom there is marked enlargement of cervical glands and I should put it in this way. If there is enlargement of glands in the posterior part of the posterior triangle I do not consider that that is necessarily a contra-indication to radical operation provided that the patient is in a state to stand a prolonged operation. On the other hand, if at the root of the neck in front of or beneath the sterno-mastoid there are glands of considerable size I do not believe that it is worth while subjecting the patient to a radical operation, for I can hardly think that in such cases the results as regards recurrence will justify it. Although Halsted advocates this procedure there is no evidence in his paper as to the results in the cases in which it has been carried out and without such evidence we cannot, of course, form any opinion on the matter.

After-treatment.—There is one point as regards the after-treatment of these cases which is of very great value and which we owe to the late Mr. Edward Cotterell. Instead of fixing the arm to the side, as was formerly done after the operation, with the result that there was a good deal of contraction and that a considerable time elapsed before the patient could use her arm at all freely, he fixed the arm at right angles to the chest by means of a special splint. This is, I think, a great advantage and I always carry it out, but instead of a splint I find that it is sufficient to place a large pad of salicylic wool in the axilla, sufficient to keep the arm at about right angles with the chest, and then to support the arm on a pillow. Even after the patient gets up it is well to keep the arm out from the side, although perhaps not so far as a right angle, for some weeks. By this method a good

deal of the contraction which follows these extensive operations is avoided and the patient recovers the use of her arm much more quickly than when it is bound to the side.

Taking the results which I have given in this paper along with the results obtained by Halsted, Butlin, and a variety of other operators, I think that we are justified in drawing the following conclusions. 1. Taking cases of all kinds together, not merely selecting favourable cases for operation but operating on all cases in which operation is possible with the exceptions which I have already mentioned, we may, I think, reckon that about 50 per cent. of the patients will remain free from recurrence if the operations are carried out on the lines laid down by Heidenhain and Stiles. 2. That even in the cases which do recur recurrence is considerably delayed and the patient enjoys a considerable interval of good health. 3. That the repeated operations which take place after the old operation are now very rare, recurrences when they do appear being usually in inoperable situations. 4. It will be evident from my results that the chance of recurrence is extremely slight after these extensive operations in patients who have remained well for from one to two years, and after three years there is only one example in my list of fresh cancer, and in that case there is no evidence that that was one of recurrence of the original disease rather than a fresh development. 5. I may add my firm conviction that *the patient's chance lies in the first operation*. If this fails, either from imperfect removal of the disease or on account of the extent of the disease in the first instance, further operation, however extensive, is seldom successful. This is my experience. I see a good many cases which have been operated upon elsewhere and in which recurrence has taken place, especially cases in which the old operation has been performed, and in the few in which I have been tempted to give the patients another chance by an extensive operation the results have been almost uniformly disappointing. Where a cancer is quite small patients and practitioners are very apt to be content in the first instance with a small operation thinking that if recurrence takes place an extensive removal can be performed afterwards. This is, I am satisfied, an utter fallacy, and the performance of a partial operation in the first instance takes away the patient's best and often her only real chance of getting rid of the disease.

Harley-street, W.

NOTE ON THE

PRODUCTION OF SYMPTOMS OF THYROIDISM IN A CHILD AT THE BREAST BY THE ADMINISTRATION OF THYROID EXTRACT TO THE MOTHER—I.E., THROUGH THE MILK.

BY BYROM BRAMWELL, M.D., F.R.C.P., F.R.S. EDIN.,
PHYSICIAN TO THE ROYAL INFIRMARY, EDINBURGH; LECTURER ON THE PRINCIPLES AND PRACTICE OF MEDICINE AND ON CLINICAL MEDICINE IN THE SCHOOL OF MEDICINE OF THE ROYAL COLLEGES, EDINBURGH.

IN one of my cases of myxœdema treated by thyroid extract the breasts filled with rich milk during the course of the thyroid treatment. This fact seemed to suggest that thyroid extract might be usefully employed in nursing women with the object of increasing the flow of milk, but the following case in which thyroid extract given to the mother (who was suffering from exophthalmic goitre) repeatedly produced well-marked symptoms of thyroidism in the infant she was nursing shows that the remedy would have to be given for such a purpose with great care and caution. The notes of the case are as follows.

A married woman, aged 34 years, who was nursing her child, aged six months, was admitted to the Edinburgh Royal Infirmary on Dec. 17th, 1894, suffering from exophthalmic goitre. The disease had developed six months previously—i.e., immediately after the birth of the child she was nursing at the time of her admission to hospital. The delivery was easy. The child had clubbed feet; this caused the mother much mental distress, and (? as the result of this mental distress) the symptoms of exophthalmic goitre quickly developed. On admission, with the exception of the clubbed feet the child was normal in every respect. The mother presented all the classical symptoms of exophthalmic goitre. On Dec. 24th thyroid extract (two five-grain tabloids daily) was administered to the mother. On Jan. 1st, 1895, it was noted that "the child has been sweating profusely for several nights past. It is looking ill and has been sleepless. It has vomited every morning for the past three days. Until a few days ago it was perfectly well, and has in fact never been ill since its birth." The question at once arose whether these symptoms in the child were due to the thyroid extract which the mother was taking. The thyroid was consequently stopped for five days. The child immediately improved, was much less restless, slept better, sweated less, and did not vomit. On Jan. 3rd it was noted that "the child is very much better," and on the 4th that "it is perfectly well." On the 9th thyroid extract was again given to the mother. The next day (the 10th) the child vomited, was restless, did not look well, and sweated profusely. The thyroid extract was consequently stopped. On the 12th the child was all right again. On the 13th two tabloids of thyroid extract were again given to the mother. On the 14th the child was again sick, looked ill, sweated profusely, and was restless at night. On the 15th the child was weaned and after this date remained perfectly well until the 25th, when the mother was discharged from the hospital.

Remarks.—There can, I think, be no doubt that in this case the administration of thyroid extract to the mother produced symptoms of thyroidism in the child, the thyroid extract being conveyed to the child through the milk. This was noted on three occasions and it is evident that the point—whether thyroid extract given to the mother can produce symptoms of thyroidism in her child at the breast—is not merely of theoretical but of distinct practical importance.

Edinburgh.

A CASE OF BLACKWATER FEVER COMPLICATED BY DYSENTERY.

BY A. T. WOOLDRIDGE, L.R.C.P. LOND., M.R.C.S. ENG., L.S.A.

THIS case presents some features of special interest; it is that of an officer, aged 26 years, who was in Ceylon in 1892 on a shooting expedition and there developed malarial fever. He had fever on the ship all the way home but did not lie up. On arriving in England he had a bad attack of malaria. In August, 1897, he went out to the Niger and was there only six weeks when he was attacked with dysentery. He remained there 14 months and had three distinct attacks of dysentery and several of malarial fever. He had not previously had blackwater fever. Last October he had a bad attack of fever on his way to England. He had never quite recovered from the dysentery.

On Nov. 25th, 1898, he went to Aldershot to mess and became chilled. Next morning he felt very shivery, came home, and went to bed. I saw him for the first time at 11.30 A.M. on Nov. 27th when he had just had a severe rigor. He was then in the hot stage. His temperature was 104° F. He was jaundiced and had been vomiting. His urine was like porter when viewed in bulk. In the evening I saw the patient in consultation with Lieutenant-Colonel A. Clarke, R.A.M.C. His temperature was then beginning to fall. His urine was claret-coloured. Neither the spleen nor the liver was enlarged and he had no pain in the loins. I should mention here that on Nov. 26th the patient took no quinine and on the morning of the 27th just before I saw him he took a five-grain tabloid of sulphate of quinine and immediately rejected it. On the 28th he was vomiting green fluid almost incessantly. At noon he had a slight rigor. His temperature was 104·2°. The urine was red by transmitted light, had an acid reaction, and contained albumin. Under the microscope no blood corpuscles could be seen. Early on the morning of the 29th I saw the patient in consultation with Mr. W. H. Crosse, late Principal Medical Officer Royal Niger Company. We took some blood-slides and on examination at Guy's Hospital by Mr. Crosse and Mr. Fakes hæmatozoa were found to be present. The patient passed a small quantity of slightly smoky urine which was loaded with albumin. The dysentery still continued; on this day the motions were 10 in number, liquid, dark, mixed with slime and blood,

and horribly offensive. In the evening the headache was less and the jaundice was less marked. The nausea and vomiting, however, were most distressing and the vomit was still bright green. From Nov. 30th to Dec. 4th there was no hyperpyrexia and the fever seemed to be taking on a quotidian type, falling to normal or below it every day and rising to about 99·4°. During this time the patient seemed better, took his nourishment, and slept well. The jaundice was less but he was very anæmic. The vomiting ceased and the dysentery abated a little, the motions being partly formed for some days. The urine remained clear and there was no albumin. On the evening of Dec. 4th, however, his temperature began to run up again and by 4 P.M. on Dec. 5th it had reached 103°. His urine became claret-coloured again, was albuminous, and had a specific gravity of 1012. Under the microscope, according to the report of the Clinical Research Association, "the deposit was seen to consist of a brownish granular débris, apparently the result of the disintegration of blood discs. Hyaline, granular, and epithelial tube-casts were present, but not in any quantity. Leucocytes were not markedly increased in number. Some crystals of uric acid were present. No torulæ were found." By the evening his urine was clearing again and was only slightly albuminous. On Dec. 6th the urine was of the colour of brown sherry. Blood from the peripheral circulation on being examined by Mr. Crosse was found to contain no parasites but nucleated red cells. On Dec. 8th the patient was much worse. His temperature went up to 104° and his pulse to 112. There was no hæmoglobinuria. There was no sign of any lung complication or hepatic abscess. The spleen could just be felt. On Dec. 9th he suddenly fainted and became pulseless while lying quietly in bed; he soon rallied, however, after administration of some stimulant. He vomited twice. His temperature, which was 98·8° in the morning, rose to 102° in the course of the day. Between Dec. 9th and 12th the fever seemed to take on a more remittent type, as it never dropped lower than 99·4° and there was a daily rise of a degree or more. The patient's colour improved and his lips were not so white. There was no action of the bowels on Dec. 10th and 11th. On the 12th there was one motion of the consistency of a poultice, dark brown, without blood or slime, still somewhat offensive. The urine was now averaging about 50 ounces a day and there was no albumin. On the 16th his temperature fell to below normal for the first time. He got up on the 22nd. The temperature fluctuated somewhat until Jan. 7th, 1899, when the maximum was 98·6°. On Jan. 14th he went out of doors.

The treatment for the first 10 days was sulphate of quinine by the mouth in doses varying according to the amount of pyrexia present. He also had a few doses of bicarbonate of soda which relieved the nausea considerably. For the tenesmus I found starch and opium enemata very successful. On the eleventh day I stopped the sulphate of quinine and gave him 18 grains of the bi-hydrochlorate of quinine hypodermically every day, gradually reducing the doses until Dec. 16th, when I stopped quinine altogether and substituted for it iron jelloids (Warwick). At a later stage I prescribed salol in 10-grain doses and the character of the motions was greatly improved thereby, becoming normal in appearance again by the middle of January.

The chief points of interest appear to me to be: (1) that the patient was debilitated by dysentery and by previous attacks of malarial fever; (2) that he had never had blackwater fever before; and (3) that he had had no quinine just before the onset of hæmoglobinuria. I believe this to be the only case on record in which a person has had his first attack of blackwater fever in England. Another point is that there was at no time any tendency to suppression of urine. The course of his temperature showed the fact mentioned by most writers that in blackwater fever the temperature follows an erratic course and that one form of fever tends to merge into another.

Camberley, Surrey.

DEATH OF A CENTENARIAN.—A man named Kohn, said to be the oldest man in Vienna, died there on Feb. 28th, at the age of 112 years, according to a certificate signed by the public notary and by the secretary of the Jewish community of Fraunkirchen, in the county of Wieselburg, in Hungary. He enjoyed talking of his reminiscences of the Napoleonic wars in Austria-Hungary. He married a second time when he was 67 years of age and went to Vienna when he was 94.

NOTES ON A CASE OF DIVERTICULUM OF THE BLADDER.

BY G. A. WRIGHT, F.R.C.S. ENG.,
AND
WILLIAM COATES, M.R.C.S. ENG.

THE patient, a man, aged 38 years, was first seen by Mr. Coates on Oct. 28th, 1898. The patient was complaining of a constant desire to pass urine, of pain in the lower part of the abdomen, of headache, and of feverishness. He stated that in early life he had had three attacks of gonorrhœa and also syphilis. 11 years ago he had painful micturition and his medical attendant advised him to pass a catheter regularly. This he had done ever since, at first twice daily but with increasing frequency until now he passed his catheter twice every hour. He used a No. 12 Jaques. It was never cleansed or disinfected and only rarely lubricated; it was carried in his pocket wherever he went. During the course of these 11 years he had several attacks of hæmorrhagic cystitis but he had never been in bed for more than 10 days. He habitually took considerable quantities of alcohol. When seen the patient was very ill; the temperature was 102° F. and the pulse was 116, small and weak. He had a constant desire to urinate and the urine was very foul, hæmorrhagic, and muco-purulent. The tongue was coated. On abdominal examination a swelling was noticed in the region of the bladder reaching midway between the umbilicus and the pubes. It was irregular in outline, hard, and prolonged on the left side into the inguinal region. It was less marked on the right side. On passing a Jaques catheter about two ounces of urine were drawn off, and on withdrawing the catheter half an inch a further half-ounce came away. The withdrawal of urine made no appreciable difference in the abdominal swelling. A sound passed into the bladder could not be moved freely; no stone was felt. The patient's condition improved slightly after the use of drugs and antiseptics and washing out the bladder, but after two days' treatment he was still so weak and ill that the question of operation became imminent.[1]

On Oct. 31st the man looked very ill; his temperature was about 99·8° and his pulse was quick and feeble. He was tremulous and he had a constant desire to pass urine. His urine was not then very foul. The local condition has been described above. There was nothing abnormal felt per rectum. On passing a large sound into the bladder it could not be depressed, though no obstruction to its entry into the bladder was felt. We thought that possibly the case was one of extravasation around the bladder from the giving way of its inflamed and softened walls, possibly a perivesical inflammation or perhaps a case of diverticulum, the latter view being supported by the results of catheterism. In any case a suprapubic operation was advised. This was declined at the time, but it was agreed to on Nov. 3rd when the man's condition was much worse; he had great pain and hiccough, though his pulse was better. On cutting down upon the bladder above the pubes it was found so hard and thick that it was with difficulty that a knife was pushed into it. On passing a finger into the cavity a diverticulum was found on the right side of about four times the size of the bladder. The bladder itself was pushed away to the left and was only made out by examination with a sound passed through the urethra. The diverticulum lay behind and to the right. A rubber drainage-tube was passed into the diverticulum and it was washed out. The man lingered for a few days and died. At the necropsy the kidneys were found to be suppurating. There was no obstruction to the urethra. The diverticulum opened into the bladder near the orifice of the right ureter.

We have thought this case worth recording as an example of diverticulum of the bladder occurring without any obvious cause of obstruction to the escape of urine. It appears to exactly correspond with the case recorded by Sir John Erichsen. In the present instance the chronically inflamed and constantly irritated bladder seems to have undergone the changes which might be expected to occur as a result of mechanical obstruction and a weak spot in the bladder wall yielded and formed the sacculus. It is an interesting and rare result of misuse of a catheter.

Manchester.

[1] The above account is from notes by Mr. Coates and the following is from notes by Mr. Wright.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. PANCRAS INFIRMARY, HIGHGATE.

A CASE OF DISPLACED OVARIAN CYST WITH TORSION AND HÆMATOMA OF THE PEDICLE.

(Under the care of Dr. J. SMEDLEY BODEN.)

IT is remarkable that the cyst of the ovary in the following case had not interfered in any way with the three confinements which took place after its presence had been diagnosed. The enlarged uterus had evidently excluded it from the cavity of the pelvis, for when an ovarian cyst of moderate size complicates a pregnancy danger chiefly arises from the cyst becoming impacted in the pelvis and so interfering with the entry of the head. With a large cyst the danger is more likely to come from rupture during parturition. The suddenness of the onset in this case was very suggestive of torsion of the pedicle of an ovarian cyst.

The patient was a widow, aged 42 years, who had had six children and one miscarriage the latter occurred 11 years ago and since then she had had three full-term confinements. 14 years ago she was in the Samaritan Hospital for sickness and abdominal pain and was then told that she had an abdominal tumour. Three years later she was in the Royal Free Hospital where she was examined under an anæsthetic, the result of which examination, thanks to the courtesy of the registrar, Dr. Boden is able to give verbatim: "A tumour is felt, smooth on the surface, elastic, elongated transversely, and occupying the posterior cul-de-sac. It can be pushed up and felt by the hand on the abdomen and seems as large as a good-sized fœtal head. There is also a swelling felt in, and a little posterior to, the right broad ligament. There seems to be a slight interval between the two tumours, but they are undoubtedly connected. The uterus is quite small and can be readily felt normally placed." The patient had been under treatment twice since for similar attacks, the last time in 1896, when she vomited a considerable quantity of blood. Menstruation had been regular up till the attack in 1896 in which hæmatemesis occurred; since then it had been scanty and occurred at intervals of several months only.

On April 6th, 1898, Dr. Boden was called to see the patient who, whilst reaching up to sweep the walls of a ward with a long broom, had been suddenly seized with violent pain in the left side of the abdomen which doubled her up and induced early vomiting. On getting her to bed the recti abdominis were found to be tense; the abdomen was generally tender, especially in the right inguinal region, where pressure produced acute pain shooting up into the left loin. Under appropriate treatment the peritonitis subsided and by the end of a week tenderness was confined to a dome-shaped swelling above the middle of Poupart's ligament on the right side. As soon as the localised tenderness allowed this was made out to be a fairly mobile, soft, fluctuating tumour situated behind and to the right side of the uterus and was diagnosed as a cyst of the right ovary.

The patient being desirous of having something radical done she was prepared for operation on April 29th. The operation lasted one hour and a quarter and ether was administered throughout. Dr. Boden exposed the anterior surface of the tumour by a median incision five inches long; on endeavouring to bring the cyst up out of the abdomen adhesions were found between it and the omentum, small intestines, cæcum, and vermiform appendix; these appeared to be recent and were all separated by careful sponging, no ligatures being required. On reaching the pedicle and separating its adhesions it was found to be twisted so that two complete rotations of the cyst were necessary to straighten it, and between its layers was found a swelling of the size of a bantam's egg containing tarry fluid. The pedicle was transfixed on the uterine side of the hæmatoma and ligatured and the cyst was removed. In now passing the hand down into the pelvis to ascertain the condition of the other ovary the stump already made was felt attached to the left side of the uterus. The right ovary was then found normally placed and was removed as it showed cystic change. In spite of the many adhesions the peritoneum was fairly dry by the end of the operation so that no drainage was considered essential. The abdominal walls were sutured in layers with silk. The tumour was a multilocular cyst with two main loculi, giving it the shape of a cottage-loaf; the smaller of the two dipped into the pelvis behind the uterus. Its weight untapped was just over two pounds. The after-history was satisfactorily uneventful and the patient has now for some time resumed her duties as ward scrubber.

Remarks by Dr. BODEN.—This case seems to be worthy of reporting not only on account of the unusual condition of the parts found at the operation but more especially from the fact that the patient, who had had an ovarian cyst certainly since 1886 when she was in the Royal Free Hospital, had nevertheless been four times pregnant subsequently to that date. She had a miscarriage in 1886. Three full-term children were born since, one in 1887, one in 1889, and the last in 1890. I have been unable to obtain any record of the actual confinements. She was attended from a hospital maternity and as no record of the case was made the existence of the cyst was probably overlooked. The patient herself states that there was nothing unusual about her last confinements except that she had rather longer times with her last three than with her earlier children. The cause of the last attack of peritonitis would appear to have been the rupture of a vessel within the pedicle of the cyst. I must in conclusion express my indebtedness to my colleagues Dr. Chilcott and Mr. Chatterton—the former for his assistance at the operation and the latter for administering the anæsthetic.

PETERBOROUGH INFIRMARY.

A CASE OF SWALLOWING STONES.

(Under the care of Dr. CANE.)

IF a foreign body has been swallowed and has reached the stomach it will in all probability be able to pass unobstructed through the rest of the alimentary canal, and if it should be arrested at any point such arrest is in all probability due to some accidental cause and not merely to the size of the body.[1] In the case reported below the practice of swallowing pebbles had continued for many years without harmful result, but the patient had evidently exercised care in the choice of the stones to be swallowed and it is not improbable that all his symptoms arose from the jagged-edged stone which had to be extracted from the rectum, for sharp points and edges are liable to interfere with the onward passage of the foreign body. We know of no other case in which the practice of swallowing foreign bodies has been carried on for so long a time and with so much impunity. For the notes of the case we are indebted to Mr. Vernon C. Bensley, house surgeon.

A man, aged 32 years, tall and powerfully built, was admitted into the Peterborough Infirmary on Feb. 13th, 1899, at 11.30 P.M., for intestinal obstruction caused by the impaction of pebbles. His history was as follows. When 14 years of age he saw a juggler performing at some country fair. Amongst other items on this man's programme was the swallowing (?) of stones and glass, the latter substance being only chewed. These remarkable feats had such a strong fascination for the lad's brain that he went straight home and swallowed 12 pebbles which he passed per rectum next morning without any ill effects. At his next attempt he managed to swallow 20 stones. In the year 1885 he enlisted and saw active service in Egypt and in the Soudan, taking part in various engagements and receiving a wound of the hand at the battle of Tel-el-Kebir. He remained with the colours for six and a half years, and during this time he occasionally amused his officers and the men with his juggling feats which included the swallowing of stones. After retiring from the army he was placed in the reserve for six years, and during this time he made juggling his sole profession, travelling with Barnum and Bailey's show in the summer and on his own account in the winter. He gave great satisfaction to the show proprietors who offered to take him to America, but this was

[1] Maylard: Surgery of the Alimentary Canal, p. 329.

refused. In this way, he said, he performed in most of the towns of England, Scotland, and Wales. He also took to chewing glass and swallowing the powder, but this he found very distasteful to his teeth and gave it up. The stones which he swallowed during the day he used to pass the next morning or sometimes in the afternoon and always without the slightest pain or discomfort. Occasionally he would have to assist their passage out of the rectum with his finger, but there was never any further difficulty. The number, weight, and size of the stones he swallowed varied very much. He once swallowed, he said, stones to the weight of nine and a half pounds at one performance. On Feb. 10th he gave a performance and as usual passed the stones the next morning, on which day, in the morning, afternoon, and evening, he gave three performances in the market place at Kettering. On the next morning he failed to pass them. The afternoon came and still the stones were not passed, and in the evening he felt paroxysmal colicky pains in the abdomen. On the next day (the 13th) he consulted Dr. W. J. Johnson of Shefford, who very kindly sent a report of his condition at that time, from which Mr. Bensley has taken the following extract:—

"On Feb. 13th, at 6.30 P.M., the patient was in a common lodging house, sitting on a low form and doubled up with pain. He said that he had swallowed some 13 dozen pebbles weighing about five pounds and a half. His bowels had not been open since the 11th although he had had a frequent desire to defecate, but without effect with the exception of passing 'blood and slime' and six pebbles. On examining his abdomen there was found a large tumour in the right iliac fossa causing bulging of the abdominal wall in this region and quite perceptible to the eye. The pebbles could be felt and the fingers could be got between them, and crepitus was felt. His pulse was rapid (about 100) and small and his temperature was 99·8° F. He had taken one ounce of castor oil about two hours previously. At 9.30 P.M. he was in much the same condition, but his pulse was more rapid and was smaller and his temperature was 100·8°. He had removed six more pebbles from his rectum and there were no more within reach of his finger. Considering his bad hygienic surroundings it was thought to be advisable to send him to the Peterborough Infirmary. Before he started for the infirmary he was given 20 minims of tincture of opium and one ounce of brandy."

The patient arrived at the Peterborough Infirmary at 11.30 P.M. on the 13th and was evidently suffering great pain. There had been no vomiting, but he was rather collapsed. His pulse was 108 and his temperature was 99·8°. On examining the abdomen there were evident distension of the large bowel and diffuse tenderness, most marked in the right iliac fossa. No tumour could be felt. Mr. Bensley found in the rectum, closely packed together, a number of pebbles, and at once proceeded to extract them with the finger, that being the most harmless instrument in his possession. The extraction of the first five or six was difficult owing to the contraction of the sphincter ani, but when this relaxed their extraction was accelerated. These manipulations were carried out without an anæsthetic and caused some pain, but this was found to be due to the fact that one stone had a jagged edge and after it was extracted there was no more pain. A good deal of flatus was at the same time expelled. There were two stones which could only just be touched with the tips of the fingers and these were brought down with the aid of a scoop. In all 66 stones were extracted, an operation which gave the patient great relief and he passed a good night and next morning he passed six more stones. On the evening of the same day 12 more stones were extracted and on the following morning he again passed seven, making 91 stones in all, which weighed exactly two pounds. The man was discharged from the infirmary on the 18th quite well. He earnestly promised that he would never swallow another stone.

The contents of the rectum photographed. To the left is seen a pigeon's egg by which the size of the stones can be estimated. The reduction in size is a little over one-third.

Remarks by Mr. BENSLEY.—The above case is, I think, of great interest in that it shows the remarkable tolerance of the walls of the human alimentary canal to foreign bodies. The stones vary much in size, the largest being one and a half inches in length, one inch in breadth, and half an inch in thickness. They have all with one exception rounded edges and it would appear that much time must have been spent in their selection. They are well shown in the accompanying illustration, on the left of which will be seen a pigeon's egg which was placed there in order to display the relative sizes of the stones. The only similar case I know of is the habit which the South African native labourers in the diamond mines have of swallowing diamonds. It is said that thousands of pounds worth of diamonds are annually recovered with the aid of castor oil. I regret that a Roentgen ray photograph could not be obtained. In conclusion, I have to thank Dr. W. J. Johnson for his report of the case and also Mr. A. C. Taylor, the secretary to the Peterborough Infirmary, for his excellent photograph.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Myelopathic Albumosuria.

A MEETING of this society was held on March 14th, Mr. THOMAS BRYANT, the President, being in the chair.

Dr. T. R. BRADSHAW and Dr. W. B. WARRINGTON contributed a paper on the Morbid Anatomy and Pathology of Dr. Bradshaw's case of Myelopathic Albumosuria. An account of the clinical features of this case was read by Dr. Bradshaw before the Royal Medical and Chirurgical Society in April, 1898, while the patient was alive. Large quantities of albumose were present in the urine for more than a year and some months before death indications of softening and fragility of the ribs, sternum, and vertebræ appeared. The diagnosis made was multiple myeloma—a condition which had been found at the necropsy of patients in former cases of albumosuria but which had never been recognised during their lifetime. Death took place in August, 1898, and the diagnosis was confirmed by the post-mortem examination. The affected bones were brittle, their deeper parts being occupied by a soft round-celled mass and the osseous tissue reduced to a mere shell. Their form, however, was not altered and there were no tumours anywhere. The new growth was submitted to a careful microscopical examination, the results of which were given *in extenso* in the paper. The kidneys were the seat of chronic interstitial nephritis of a moderate degree. The clinical history and the morbid anatomy differed materially from osteo-malacia but corresponded with the description of former cases of multiple myeloma. Only six well-attested cases of albumosuria with bone disease had been published when Dr. Bradshaw read his first paper on the present case. In some of them the bone disease had been altogether overlooked during life, and in the others it had been considered to be osteo-malacia. The present was the first case of albumosuria in which the diagnosis of multiple myeloma had been made and confirmed at the necropsy. Dr. Bradshaw and Dr. Warrington reviewed the six previous cases and pointed out their general similarity to the present one. They laid special stress on the importance of the remarkable reactions of the urine in these cases, and expressed their opinion that the cases of multiple myeloma with albumosuria were of an entirely different nature from those in which albumose does not occur in the urine. For cases of albumosuria with new formations in the marrow they proposed to adopt the term "myelopathic albumosuria."

Dr. PARKES WEBER said that in its main features the case described in the paper corresponded with one which he had published under the title of "General Lymphomatosis of Bones" in the *Journal of Pathology and Bacteriology* for January, 1898. In both cases the patients were old men with increasing kyphosis, with severe pains in the bones and progressive debility. Pneumonia was present at the time of death in his and in other published cases and Dr. Bradshaw's patient suffered from pneumonia in the course of the disease but recovered from it. In Dr. Parkes Weber's case nothing abnormal was noticed in the urine when the patient first came under observation, but unfortunately no subsequent observations were made. Possibly, however, albumose might have been present before death, as in a case observed by Senator albumose only made its appearance late in the course of the disease. In Dr. Weber's case there were deposits of calcium phosphate in the kidney, probably not associated with the bone tumours but with the presence of a small adenoma of the kidney. Although it was most easy to account for the presence of albumosuria by supposing that the albumose was formed in the new growth it was difficult to see why albumosuria did not occur in association with lymphomatous growths in other organs of the body.

Dr. A. T. H. WATERS (Liverpool) said that he had seen the patient during life. Such cases must be very rare as he had never come across any other in either private or hospital practice. It was possible that they did occur and were overlooked. Now that attention had been drawn to them and that observers had such a careful description to guide them as that given by Dr. Bradshaw and Dr. Warrington probably they would be more often met with. Cases were most likely to come under the observation of the surgeon or to be found in the infirmaries. It was most important to determine whether the presence of albumose was to be regarded as indicative of a certain specific disease.

Dr. BRADSHAW, in reply, said that out of 16 cases of multiple myoma on record albumose was only detected in six. Round-celled growths in other parts of the body did not cause albumosuria and they might occur in bones without albumosuria, and he thought that the change in bones which caused albumosuria in the six cases in which it had been found was something *sui generis*.

MEDICAL SOCIETY OF LONDON.

Radical Operation for Inguinal Hernia.

A MEETING of this society was held on March 13th, Mr. EDMUND OWEN, President, being in the chair.

Mr. JOHN LANGTON read a paper on the Radical Operation for Inguinal Hernia and afterwards traced the history and progress of the surgical treatment of inguinal hernia from the earliest times, observing that surgeons even in comparatively modern times had not viewed with favour operation for the cure of hernia. Up to 1835 no attempt was made to occlude the canal and it was not until Mr. John Wood introduced his improved operation in 1857 that any great success was attained. Mr. Wood claimed 70 per cent. as successes, but Dr. Cheever of Boston stated in 1870 that in America the statistics showed that barely 25 per cent. were permanently cured and reported 20 cases of operation with two deaths. Mr. Langton described four methods of procedure which appeared to involve definite principles as distinct from mere modifications of detail: (1) reconstruction of the inguinal canal with transplantation of the vas deferens and its vessels to the upper angle of the incision so as to form a new inner ring; (2) operations in which the whole or part of the sac was utilised to form a pad or buffer within, or close to, the inner ring so that the peritoneal fossa usually met with is converted into a convex buffer; (3) ligature of the sac close to the inner ring, its excision, and the reconstruction of the inguinal canal; and (4) partial removal of the sac, its ligation and torsion, its withdrawal through the conjoined tendon and the inner pillar of the external abdominal ring, and its retention in this situation by suture. He remarked that it was impossible to determine the exact method to be adopted until the parts were exposed and the conditions were thoroughly examined. He himself preferred and practised whenever possible the operation first described with certain modifications. He described this operation in detail. Kangaroo tendon was used as a continuous rather than as an interrupted suture, the coaptation of the canal being thereby made more complete. Drainage was needed only when hæmorrhage had been profuse or when a cavity was left after removal of a large hernia. In males between 10 and 15 years of age, especially when omentum presented, Mr. Langton's practice was to drag down a considerable piece, returning it into the peritoneal cavity after securely ligaturing it. Rest and maintenance of the recumbent position for a month were most important elements in the after-treatment. Passing on to discuss the question of suppuration he commented upon the widely divergent remarks recorded by various operators in this respect. At St. Bartholomew's Hospital the proportion of suppurative cases amounted to 16·5 per cent. One of the main causes of this, he suggested, was insufficient cleansing of the skin prior to operation. Most surgeons would agree that this complication tended to lessen the full benefit of the operation, though there were surgeons who held the opposite opinion. With respect of the mortality of the operation the danger had been rendered practically *nil*. At St. Bartholomew's Hospital during the six years ending 1898 there were only two deaths in about 650 cases of reducible hernia, one from septic pneumonia and one from scarlet fever. Of 48 cases of irreducible inguinal epiplocele operated on two died, neither death being directly due to the operation. The mortality had greatly improved since 1880. Owing to the high mortality in infants and in extreme old age operations should not be performed at the extremes of life except for pressing reasons. Mr. Langton discussed the various substances used for sutures, he himself preferring kangaroo tendon, and he had not had a single

instance of suppuration. When this did occur the formation of pus was comparatively slight and did not end in the suture coming bodily away as with silk. During the last five months he had performed 30 operations for the cure of hernia; 27 of these had healed by first intention, while in three superficial suppuration occurred. The hospital records showed that operation for inguinal hernia was performed much more frequently in males than in females. As a possible explanation he mentioned that, according to the tables of the City of London Truss Society, out of 10,770 patients applying for trusses 9900 were males and only 870 were females. Moreover, there were other reasons for more frequent operations in males, such as entrance into public services, their more laborious work, and the constant risk of strangulation. The curative operation was one adapted for girls, in whom it was more simple than in males. Referring to the advisability of a truss after the operation he observed that no part of the treatment excited greater divergence of opinion than that. He himself always advised the use for a time of a supporting instrument, an opinion which was confirmed by experience, seeing that patients who applied for relief at the Truss Society owing to failure of the operation were those who had not worn any support. Of 138 cases 78 were advised not to wear a truss, while 60 were recommended to wear one for a limited period. In private practice he always recommended a truss. The operation was contra-indicated—(1) when the age was less than six years; (2) when there was co-existent organic disease; (3) when the hernia was so large that the abdominal cavity was unable to receive or retain under moderate pressure the extruded viscera (in such cases a palliative operation to retain the hernia aided by a truss might secure the patient from the chance of strangulation); (4) when the patients were very old; (5) when the tendino-muscular walls were weak and bulged for a considerable area on coughing; and (6) when septic peritonitis the result of strangulated hernia was present. Mr. Langton called attention to the almost insurmountable difficulties in the way of obtaining an estimate of the permanent results of the operation. Two years was the shortest period within which an opinion could be expressed. Statistics gave most conflicting results. The records of the City of London Truss Society showed that in the last six years 242 patients upon whom operations had been performed were treated for failure of the operation, from which it might be inferred that the total number of failures must be very considerable. In private practice the results were better known and were encouraging, 80 per cent. being successful at any rate for several years.

The PRESIDENT objected to the use of the term "radical cure," he himself always calling it the "operation for the radical cure." He often operated on children under six years of age and asked the Mr. Langton whether he would rigidly adhere to that limit under particular circumstances, as, for instance, in a child, aged three years with careless parents and hernia steadily increasing in size. For suturing he preferred a material which could be used for everything, such as silk, which, in his experience, did very well.

Mr. STANLEY BOYD observed that it would be very useful if surgeons could learn the ultimate results of their operations. He insisted on the importance of leaving the peritoneum smooth and tense, a point about which he was always very careful. He always applied torsion to the sac, but in one case the bladder was unfortunately included, with a fatal result. The next important structure was the transversalis fascia which should be closed by a continuous suture. He urged that the muscular arch should be restored as far as possible to the normal arrangement, thus materially assisting in preventing relapse. He used a fishing gut stitch to close the external oblique, removing any superfluous fat. For the last two years or more he had always operated by a flap, putting three knots on the fishgut suture, which was a continuous one, cutting off the ends close to the knot. Since he had done this he had not had an instance of a stitch reappearing on the surface. He agreed with Mr. Langton as to removing a piece of omentum. He confessed to having had some cases of suppuration and observed that there was no operation in which suppuration gave so much trouble. He thought the best plan was to give an anæsthetic and to take out some of the external stitches, passing through the internal oblique and transversalis and placing a tube in contact with the neck of the sac. He observed that it would be interesting to discuss the causes which underlay the greater frequency of femoral hernia in the female after puberty, especially as the sexual differences in the pelvis were as marked in a five months' fœtus as they were afterwards. He himself had fixed three years as the limit of age for operation in infants, that being the age at which children had acquired control over the bladder. Personally, he never recommended a patient to wear a truss unless the abdominal structures were unusually weak.

Mr. OSBORN asked Mr. Langton how long he thought patient ought to wear a truss after operation, a practice of which he approved, though patients were often disappointed, having looked forward to being enabled to dispense with its use after the operation. In young children a hernia would often disappear with a truss without any operation.

Mr. LANGTON, in reply, congratulated the President on the fact that his name did not appear on his list of London surgeons responsible for the failures to which he had alluded. In praising kangaroo tendon he did not wish to decry silk and fishing gut. He did not wish to lay down any hard-and-fast age limit. In his paper he had stipulated that if the child were well cared for he would not advise an operation. His experience at the Truss Society was that in most instances when a truss was applied to a child the rupture was not heard of again. He agreed that the limit of three years was not a bad one on the whole. He concurred in the importance of leaving the peritoneum tense and smooth. The inclusion of the bladder when torsion was applied to the sac was an accident which might happen to anyone, but he always opened the sac and passed his finger into the peritoneal cavity before applying torsion. (Mr. BOYD remarked that this was his invariable practice also.) Mr. Langton confirmed the remarks which had fallen from Mr. Boyd on the vital importance of arching over the fibres of the internal and oblique transversalis. In private practice he often ordered gymnastic exercises with the object of increasing the musculature and tension of the abdominal walls. He pointed out that femoral hernia occurred principally in women between puberty and the menopause, so that the influence of parturition was probably a factor in its production, though even during this period hernia in a pregnant woman was inguinal in 99 per cent. of the cases.

CLINICAL SOCIETY OF LONDON.

Hydatid Cysts in the Lung and the Liver removed by Operation.—Pancreatic Cyst treated by Drainage.—Removal of Malignant Tumour involving the Frontal Bone.—Erasion of the Ankle-joint.

A MEETING of this society was held on March 10th, the President, Mr. LANGTON, being in the chair.

Mr. H. BETHAM ROBINSON described a case of Hydatid Cysts in the Upper Lobe of the Right Lung and in the Liver both successfully removed. The patient was a boy, aged six years, who was admitted under his care into St. Thomas's Hospital on June 7th, 1898. There was nothing to note in the previous history except that for some time he had had a cough. When first noticed, three years before, the abdominal tumour was of the size of a marble and had gradually become larger without any pain. Up to his admission there had been no suspicion of the existence of a cyst in the lung. On examination he was found to have a firm rounded cystic swelling in the right hypochondriac and lumbar regions, reaching almost to the middle line and to the level of the umbilicus below. There was a rounded nodular projection on its inner side just under the umbilicus. The liver dulness began at the seventh rib in the nipple line and was continued down over the tumour. The whole swelling moved with respiration and it could be grasped between the hands placed in front and behind. The urine was slightly albuminous. The chest on examination showed that the upper part of the right side in front bulged. The percussion note was dull down to the third rib and dulness was also present high in the axilla and over the apex of the lung posteriorly. Over the dull area in front the breathing was tubular and vocal resonance increased, but behind all sounds were diminished. No crepitations were elicited on coughing. There was no elevation of temperature, so the physical signs were suggestive of a hydatid in the lung. On June 22nd the liver hydatid was operated on by an incision in the linea semilunaris. The liver came well below the costal margin and a cyst was seen springing from the inferior surface having the gall-bladder on its upper surface

and left margin. The cyst having been pushed into the wound was incised and hooked well out of the abdominal wound with the finger, preventing any contamination of the peritoneum. The hydatid membrane was removed with forceps after about a pint of clear fluid had escaped. The fibrous wall was not interfered with, the cavity was washed out with one in 1000 perchloride of mercury solution, and the opening was sutured with catgut except for a hole for a gauze drain which was brought out of the abdominal wound. By packing, the abdominal and cyst wounds were kept as closely apposed as possible. It will be noted that the cyst was not fixed to the abdominal wall. The subsequent progress was uneventful except that the discharge became purulent on the tenth day with a slight rise of temperature. In spite of this the wound was soundly healed at the end of a month. During this time his lung signs underwent no change, but his liver still remained pushed down. A skiagram made by Dr. Barry Blacker showed a well-marked opacity in the upper lobe of the right lung so dense as to obliterate the rib shadows. On August 15th the lung was operated on. The pectoralis major being split one and a half inches of the second rib were resected and then on careful incision it was evident that the pleural layers were adherent. Turning the boy on his right side so as to allow free exit for the fluid and to prevent a possible flooding of his bronchial tubes on the collapse of the cyst a hollow needle was introduced to get a knowledge of the depth of the cyst from the surface. A drop of fluid appeared when the needle had been introduced about one quarter of an inch, and a free incision was made when several ounces of hydatid fluid gushed out. The finger was introduced and the cyst membrane was removed whole with the aid of forceps. The cyst was of about the size of an orange without any daughter cysts. There was fortunately no communication of the fibrous sac with the larger tubes, for there was no marked coughing or bloody expectoration after the incision. A large india-rubber drain was introduced. For some few days afterwards he had a high temperature and physical signs indicative of some localised pneumonia but without any signs of pleuritic effusion. At the end of 10 days his temperature was only slightly raised at night and the tube was removed and a gauze drain was substituted. At each daily dressing the boy was turned on his face so as to thoroughly drain the cavity, which was then insufflated with equal parts of aristol and boric acid. On Sept. 7th (the twenty-second day) the wound was quite superficial and the lung on examination was resonant all over, air entering well right down to the base with expiration; the breathing was still tubular in places but no adventitious sounds could be heard. On the 9th he got up and on the 19th, when the wound was quite healed, the lung on examination gave no evidence of any cavity. He went to a convalescent home on the 22nd and had remained well since.—Dr. KINGSTON FOWLER asked whether the patient had continued in good health, mentioning that he had recently heard of two similar cases successfully operated upon, but in both instances the patient had subsequently developed pulmonary tuberculosis.—Mr. BETHAM ROBINSON, in reply, said that up to two months ago at any rate the patient had remained perfectly well.

Mr. A. E. BARKER related a case of Pancreatic Cyst treated by Incision and Drainage. The patient was a boy, aged 14 years, who was admitted to hospital on July 12th, 1897. He had had a fall some weeks previously, striking his left side. He was rendered unconscious and remained so for some hours, and for a fortnight after he was stated to have been delirious and to have suffered from hæmoptysis on several occasions. A large swelling occupied the left side of the abdomen throughout the left hypochondriac, lumbar, and left half of the epigastric and umbilical regions. There was also slight fulness to the right of the middle line. The swelling came from beneath the left costal margin which was distinctly bulged. The tumour was dull on percussion and on the left this dulness was continuous with that of the spleen. The tumour moved with respiration. There was apparently a small amount of fluid in the peritoneum. Considering it to be a pancreatic cyst Mr. Barker opened the abdomen on July 15th, 1897, by a three-inch vertical incision through the left rectus muscle close below the ribs. On opening the peritoneum the stomach was found to be stretched over the tumour and the transverse colon lay below it. Between the two there was a small space through which the cyst was tapped, giving issue to three or four pints of fluid, at first clear and light-coloured, but becoming slightly brown towards the end. He sutured the lips of the cyst to the edges of the wound and left in an iodoform gauze drain. The patient did well and left the hospital on August 15th with the wound quite healed. There had been no return of the trouble. A careful analysis by Mr. Nabarro and Dr. Sidney Martin gave the following result: the fluid was of a brownish-yellow colour, of specific gravity 1010, with a sweet aromatic smell, not urinous; the reaction was alkaline; there was no sugar or bile, but a trace of peptone. On boiling albumin was precipitated; the total solids were, 1·63 per cent.; ash, 0·81 per cent.; and total proteids, 0·66 per cent. The fluid displayed marked amylolytic action, but no fat splitting or proteolytic action.—Mr. ALBAN DORAN remarked that one could not have a better clinical subject for surgeons to discuss than the proper treatment of a cyst and Mr. Parker's paper emphasised what the surgical treatment should be. In reference to the question of diagnosis he remarked that a broad-based cyst if rather large, though fixed to bone or an adjacent organ, could when grasped be made to move laterally very freely, as had been the case in Mr. Barker's patient. Mr. Doran pointed out that it was exactly the same with a pelvic cyst which could often be freely moved although so firmly fixed as to require enucleation. He agreed that the best treatment for pancreatic cysts was incision and drainage. It often happened that the nature of the cyst could not be diagnosed till the very end of the operation and several operators had openly admitted that they would not have performed the operation of enucleating had they known beforehand what it was, the risks being too great. He recalled that Krönlein had successfully removed a cyst, but the patient died on the tenth day and at the necropsy the transverse colon was found to have sloughed. Poncet who had operated on several cases did a very bold operation on an almost sessile cyst in which he left seven clamp and pressure forceps sticking out of the wound. The removal of one of them was followed by hæmorrhage and it had to be hastily reapplied though it was impossible for the surgeon to see what he was taking hold of. The patient recovered, but it was obvious that in reapplying the forceps the operator might have grabbed anything. Eve of Nashville had removed a cyst of the tail of the pancreas which was a comparatively easy situation, yet not only the mesocolon but also the transverse colon were torn across. These were repaired and the patient recovered, but that was a risk which few of them would be prepared to face. In other cases the splenic vein and artery had been wounded. Evidently, therefore, the risks of removal were too great if one bore in mind the excellent results of drainage, as in Mr. Barker's case, in his own, and in the three cases under the care of Mr. Bilton Pollard reported in the *British Medical Journal*. The right treatment was not to perform an operative feat but to drain.

The PRESIDENT concurred in the view that drainage was the best treatment. He referred to the case of a man with an enormous tumour in the situation mapped out by Mr. Barker. It was not an ordinary pancreatic cyst, there being hæmorrhage into the substance of the organ and the case had been supposed to be one of malignant disease at the back of the abdomen. He (Mr. Langton) thought, however, that he could feel fluctuation but the exact situation of the tumour could not be decided. He made a median incision and went above the stomach through the gastric hepatic omentum, giving issue to nine and a half pints of old blood. The patient, although very ill for a few days, did remarkably well with drainage. The interest in the case lay in the fact that three years afterwards he was taken ill and ultimately died, and post mortem it was found that the portal vein had become so constricted in the scar tissue that there was practically no circulation through the hepatic area.—Mr. ARBUTHNOT LANE mentioned the interesting fact that in one of the cases on which he had operated the cyst, though distinctly pancreatic, was made up of three separate loculi.—Mr. BARKER replied.

Mr. W. H. BATTLE brought forward the account of a case of Successful Removal of a large Malignant Tumour with Underlying Bone from the Frontal Region of the Scalp. The patient, a married woman, aged 35 years, was admitted to the Royal Free Hospital on Jan. 21st, 1897. Eight years before a small lump had been noticed in the scalp a little to the left of the middle line behind the hair of the frontal region. Several operations had been performed for its removal and the present growth had been growing for two years. For some months there had been intermittent hæmorrhage from it and her general health had greatly

deteriorated. A large irregular nodular mass with overhanging edges presented in the frontal region. This measured about three inches by four and a half inches and projected three and a half inches from the level of the scalp. Vascular and foul smelling, it presented a formidable aspect, whilst the removal of the dressings caused troublesome bleeding, which required steady pressure to arrest it. Firmly attached to the bone it did not pulsate and was not accompanied with glandular enlargement. On Jan. 27th, after the application of an elastic bandage circularly to the head to control bleeding from superficial vessels, the tumour was removed from the surface of the bone and pads were applied to arrest the bleeding which ensued from the skull where the growth had invaded it. This pressure was removed next day. On Feb. 7th the bone affected was removed; a trephine was first applied and from the opening thus made a circular saw worked by hand motor was guided so as to divide the bone above and below, after which a few strokes of the chisel were sufficient to free the implicated portion. The growth had not invaded the dura mater but presented a series of closely set elevations with flattened tops where it had completely eaten away the skull. Very little hæmorrhage (comparatively) followed the removal of this piece of bone, but one vessel in the dura mater required the pressure of a pad and a bandage to arrest the bleeding from it. She got up on Feb. 25th. Granulations soon sprang up and on March 2nd skin grafts after Thiersch's method were taken from the thigh and placed on the dura mater with full success. She left hospital on March 22nd greatly improved by her stay. There was then an irregular circle of dead bone around the area of operation which gradually separated during the next few months and cicatrisation took place around. The relief to the patient and the improvement in her general condition and appearance were very great. Wearing a handkerchief across the forehead and round the head she was comfortable, and there was no suspicion aroused of the underlying deformity. No attempt had been made to cover over the area left after removal of the bone by means of a plate. Mr. Battle drew attention to the various methods of removing portions of the skull now available and Messrs. Down showed instruments adapted to this object during the course of the evening. The rarity of such cases was mentioned and the unusual character of this fungating growth, the microscopical examination of which showed it to be a spheroidal-celled carcinoma. The case was also interesting from the fact that it was necessary to apply grafts to the dura mater in order to provide for its better protection from the air.—Mr. BARKER agreed with Mr. Battle that the motor had very considerable drawbacks, being difficult to direct and apt to jam. Possibly with a large fly-wheel it might be more practical. He recommended the use of Gigli's wire saw which he himself had recently used with very satisfactory results. He suggested, however, that instead of the loops, if the ends were shaped like a sound it would be more easy of introduction.—Mr. BATTLE, in reply, said that at the time he did this operation he was not acquainted with Gigli's wire saw.

Mr. ARBUTHNOT LANE read notes of a case illustrating an operative procedure for Erasion of the Ankle-joint which gave a clear field for the complete removal of tuberculous material from this joint without offering some of the objections he had found to arise occasionally in the method which he had described.[1] In that operation he divided by means of a transverse incision all the structures around the joint except the internal lateral ligament, the tibialis posticus, and the flexor tendons of the toes. The divided tendons were carefully sutured, but in spite of this, often owing to infection of the joint previously to operation, they occasionally united imperfectly and deformity and imperfect control of the foot resulted. Besides the transverse incision through the skin he now made vertical incisions of sufficient length to enable him to expose the several tendons for a considerable length. In the young infant he found he could expose the interior of the joint by dividing the peroneus tertius alone as well as the external, anterior, and posterior ligaments, the other tendons being turned out of their sheaths and hooked aside. In other children he also divided the peroneus longus and high up, cutting through muscular and tendinous fibres, securing larger and more vascular areas in accurate apposition, and keeping the sutured portion at a distance from the joint and so minimising infection of it. He took the same precaution with the peroneus tertius. By this means the objections to the other operation were practically completely avoided without diminishing its thoroughness.

[1] Transactions of the Clinical Society of London, vol. xxv.

OPHTHALMOLOGICAL SOCIETY.

Implantation Cysts of the Iris.—Green Vision in a Case of Tabes Dorsalis.—Albuminuric Retinitis in a Child.—Strabismus Fixus.

AN ordinary meeting followed by the annual general meeting of this society was held on March 9th, the President, Mr. H. R. SWANZY, being in the chair.

Mr. DEVEREUX MARSHALL recorded three cases of Epithelial Implantation Cysts of the Iris which he had recently examined and showed photographs by the lantern of the points of interest which each exhibited. The first case was that of a boy, aged 12 years, whose eye was wounded eight years before. It remained quiet until three months before removal, since which time it had been painful and irritable. There was found to be a crescent-shaped scar of the cornea, to which the iris was adherent. At the bottom of the anterior chamber there was found a large cyst. On further examination the walls were found to be formed by the iris, which was split into two unequal parts; the iris itself was so atrophied that at one place the wall was composed solely of epithelium. The second case was that of a youth, aged 17 years, whose eye was wounded seven years ago with a piece of wood. It remained quiet until it received a severe blow two weeks before removal. A small cyst was then found at the upper and inner part of the anterior chamber. The anterior wall of this was composed of an extremely thin piece of atrophied iris lined with epithelium and adherent to Descemet's membrane. Its posterior wall was composed of the greater part of the thickness of the iris; the epithelium was laminated and similar to that of the cornea. The third case was that of a man, aged 29 years, whose eye was wounded some years before and had recently become painful and quite blind. The eye was enucleated and in the anterior chamber was found a small mass near the inner corneo-scleral junction. It had developed in the muscular part of the iris. The cyst was found to be lined with epithelium which had undergone great proliferation, so much so that its cavity was filled with degenerated epithelial cells which had become shed and having no place of escape had become collected together in the interior of the cyst, thus giving rise to the dense white appearance noted during life. The epithelium in this case apparently arose from a portion of cutis which had become driven in at the time of the original accident, whereas in the other cases the epithelium of the cornea was almost certainly the cause of the cystic development. The question of cysts in general was shortly discussed and some museum preparations of eyes illustrating the subject were shown.—Mr. TREACHER COLLINS said that these cysts varied greatly in situation; they were sometimes found in the substance of the cornea, sometimes in the anterior chamber after cataract extraction, and sometimes in the iris itself, being occasionally caused by development of the root-sheath of an eyelash carried into the eye. They were also found in the vitreous, beneath the conjunctiva, and in the orbit. They might be classified as deeply pigmented and unpigmented, the former ones being due to a separation of the two uveal layers of the iris, the latter or unpigmented ones being either mesoblastic, due to dilated crypts of the iris, or due to epithelial inclusion after injury, in which cases their contents might be either clear or sebaceous, according to the source of the included epithelium.

Mr. WORK DODD related the case of a patient, aged 32 years, the subject of Green Vision in a case of Tabes Dorsalis. In 1886 his sight was quite good; in 1891 he had diplopia, from which he recovered. His colour vision remained good till 1897 and he complained of defective sight shortly before being seen in July, 1898. When first seen the vision of the right eye was $\frac{6}{9}$ and that of the left eye was $\frac{6}{6}$. He had Argyll-Robertson pupils, optic atrophy, and contraction of his visual fields; his gait was ataxic and he had occasional trouble in passing urine. In September, 1898, the vision of the right eye was reduced to $\frac{1}{60}$, while with the left eye he could only perceive movements of the hands.

He then saw everything a bright emerald green; it appeared to him as if there was a green veil hung before his eyes through which he saw everything. He occasionally saw rose-pink spots through the green veil in places. The colours increased in intensity when he was tired, especially the rose-pink. He had also occasional sensations of very brilliant light.

Dr. ARNOLD LAWSON and Dr. G. A. SUTHERLAND communicated a further note on a case of Albuminuric Retinitis in a Child. A girl, aged 12 years, was exhibited before the society last year with advanced albuminuric retinitis in both eyes and symptoms of chronic interstitial nephritis. Two weeks after she was shown to the society she had uræmic convulsions and absolute blindness which lasted some days. During the next few months she had headache and vomiting but no more uræmia. In September she was readmitted to the hospital for cardiac failure; death followed. The whole duration of the illness had been a year and three-quarters. Post mortem both kidneys were found to be granular; the heart was hypertropied and there was a cerebral hæmorrhage into both ventricles. In the retina exudation of the usual type was found at the central region. Congenital syphilis was suggested as a cause.—Mr. HOLMES SPICER thought the suggestion of congenital syphilis as a cause was interesting. He had now under his care a female, aged about 20 years, who had interstitial keratitis in both eyes a few years ago and other evidence of congenital syphilis. In the last few months she had developed very marked sclerosis of her retinal arteries which presented the typical gold-wire appearance; she had retinal hæmorrhages and flocculent masses of retinal exudation. There was also albuminuria.—Dr. LAWSON, in reply, said that Dr. Guthrie who had made a post-mortem examination had found this condition present in children in many cases and he believed it to be almost always due to congenital syphilis.

Mr. E. DONALDSON reported a case of Strabismus Fixus. A female, aged 46 years, had had convergent squint since childhood; the deviation was so great that the left cornea was almost hidden. Under an anæsthetic the eye could not be drawn out and it was impossible to reach the internal rectus to divide it. The other eye was also fixed in a strongly convergent position, but it was possible to divide the internal rectus; by separating Tenon's fascia freely from the globe the position of the eye was much improved. Snellen had published some cases all of which were congenital; the condition had been named "strabismus fixus" by von Graefe, but the cause was unknown.

The following living and card specimens were shown:—

Mr. SYDNEY STEPHENSON: A case of Hippus.

Mr. W. A. BRAILEY and Mr. J. W. EYRE: A case of Exophthalmic Goitre and Glaucoma.

Mr. R. W. DOYNE: A peculiar form of Choroiditis occurring in several members of a family.

Mr. J. GRIFFITH: Serous Cyst of the Conjunctiva.

Mr. W. LANG and Dr. A. H. THOMPSON: Two cases of Embolism of the Central Artery of the Retina with escape of Papillo-Macular Triangle.

Dr. REGINALD E. BICKERTON: Haab's Magnet.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Appendicitis.—Œdema of the Lungs.—Exhibition of Specimens.

A MEETING of this society was held on March 3rd, Mr. EDWIN LEE, President, being in the chair.

Mr. W. H. BROWN read a paper based on 32 cases of Appendicitis. 13 cases were operated upon, three of these being associated with general peritonitis and dying within a few hours after operation; seven were cases of localised suppurative appendicitis, all of which recovered; and three were cases of relapsing appendicitis and recovered after removal of the appendix. Of the 19 cases treated without operation 18 got well, the one fatal case occurring in a woman a week after ovariotomy; at the post-mortem examination gangrenous appendicitis was found. Mr. Brown then discussed the different degrees of severity of appendicitis and considered that in the suppurative form simple incision and draining of the abscess was the safest plan of treatment. After a second attack of recurring appendicitis he advised removal of the appendix.—A discussion followed in which Dr. GRIFFITH, Dr. CAMPBELL, Mr. LITTLEWOOD, Dr. D'O. GRANGE, Dr. CHURTON, Dr. BLACK, and Mr. KNAGGS took part.

Dr. CHURTON read a brief note on Acute Œdema of the Lungs. He had observed during many years that in diseases in which pulmonary œdema was the last and fatal event the upper lobes were usually more œdematous than the lower. The lower lobes were darker and contained more blood but yielded much less fluid on pressure. This observation had been found useful in cases of sudden and urgent dyspnœa in which acute œdema was suspected and in which accurate investigation was very difficult. Recently, in three such cases it could be shown that the upper lobes were not dull and had no crepitations; it was thence inferred that the dyspnœa was not due to œdema. It was apparently caused by temporary paralysis of the diaphragm and lower intercostal muscles; the lower chest did not move. One patient was on the point of being bled but a history of constipation was elicited; the rectum was found distended by very hard masses and on their removal, with much difficulty, the dyspnœa, pallor, sweating, &c., subsided. It was improbable that œdema of the lower lobes alone could cause symptoms of so great intensity and suddenness.—Dr. ALLAN, Dr. GRIFFITH, and Dr. TREVELYAN took part in the discussion. Both the last named agreed with Dr. Churton as regards the preponderance of the œdema in the upper lobes.

The following cases, pathological specimens, &c., were shown:—

Dr. A. BRONNER: (1) Unusually Large Rhinolith; and (2) a case of Operation for Empyema of the Frontal Sinus.

Dr. CHURTON: (1) Stenosis of the Pulmonary Valve after Rheumatism; (2) Pulsus Paradoxus and Blocked Right Internal Mammary Veins from Mediastino-pericarditis; (3) Thoracic Tumour—(?) aneurysm or sarcoma; (4) Jacksonian Epilepsy; and (5) Abdominal Tumour.

Dr. SPOTTISWOODE CAMERON: Specimens of Bovine Tuberculosis as seen in the Udder, Liver, Kidney, and Pericardium of the Cow, with microscopical preparations by Dr. Trevelyan.

Mr. L. KNAGGS: (1) Middle Meningeal Hæmorrhage; (2) Dislocation of the Shoulder; and (3) Acute Necrosis of the Centre of Ossification of the Astragalus.

Dr. POWELL WHITE: Three specimens of Blood from Leukæmia and Pernicious Anæmia.

Mr. PRIDGIN TEALE: Colloid Carcinoma of the Omentum.

Dr. T. WARDROP GRIFFITH: Dissection of a specimen of Hermaphroditism with Imperforate Anus.

Dr. BRAITHWAITE: Two Ovarian Tumours, each with a Twisted Pedicle, removed from the same patient at the same time.

Dr. TREVELYAN: Specimens of various Chromogenetic Bacteria.

LIVERPOOL MEDICAL INSTITUTION.

School of Tropical Disease in Liverpool.—Exhibition of Cases.—The Chronicity of Eczema.

A MEETING of this society was held on March 9th, the President, Dr. MACFIE CAMPBELL, being in the chair.

The following resolution was carried unanimously:—

That the members of the Liverpool Medical Institution cordially support the establishment of a School of Tropical Disease in Liverpool where, owing to the exceptional opportunities for studying tropical diseases, medical men before proceeding to the tropics or taking charge of ships can receive systematic training and where facilities for research will be provided.

The PRESIDENT in proposing the resolution congratulated Liverpool on the lead it had taken in this matter. With its manifest advantages in having a large foreign trade such a school would soon draw pupils. Already the foreign consuls had been interested in the subject through the energy of Professor Boyce. Much credit was due to the Royal Southern Hospital which had placed a whole flat at the disposal of the school and further investigations would take place at the Thompson-Yates Laboratories, University College.—Dr. EDWARD ADAM seconded the resolution.—Professor SHERRINGTON expressed his conviction of the value of the School of Tropical Disease to Liverpool and indeed to the whole country. The opportunities offered by the second seaport in the empire were a sufficient guarantee of the desirability in the foundation of the school there. Years ago Professor Koch had urged the

national duty which devolved on England as mistress of India to investigate malaria and cholera, yet, in comparison with the work done by Germany, Italy, and America, England had contributed little to human defence against these diseases, although the scourge especially touched her sons.—Professor BOYCE said that the establishment of the school had awakened great local enthusiasm, so much so that £1000 had been promised in subscriptions, most of these being annual; no pains had been spared in securing the best teachers and in thoroughly equipping the clinical laboratories which in 10 days' time would be ready and thus would be the first in England, indeed in Europe. Close upon 300 cases of malaria alone were notified in Liverpool last year; half of the cases were treated in hospital, the Royal Southern Hospital, where the special wards were now being fitted up, having the largest number. They were in full sympathy with the movement in London, but they asked for full and independent recognition from the initiator of the whole scheme (Mr. Chamberlain) in regard to the teaching of West African and West Indian diseases for which they had unrivalled opportunities. The medical profession in Liverpool were unanimous in wishing success to the school.—Dr. WILLIAM CARTER thought the subject of so much importance that a report should be sent to the public press in addition to the medical journals.—This was carried.

Dr. NATHAN RAW exhibited a patient on whom he had operated for Traumatic Aneurysm of the Axilla treated by free incision and ligature of the axillary vein and subscapular artery after placing a temporary ligature on the first part of the axillary artery and vein. The damage to the axilla had been caused by placing the foot in the armpit to reduce a dislocation.—Mr. MITCHELL BANKS expressed the pleasure it had given him to assist Dr. Raw and congratulated him on having brought to a successful issue a dangerous, difficult, and trying case. He had been fortunate enough to witness in 1862 the celebrated operation done on an axillary aneurysm by Professor Syme by boldly laying the sac open and ligaturing the vessel.

Mr. DOUGLAS CRAWFORD showed a boy, aged 15 years, on whom he had operated for Compound Diastasis of the Lower End of the Right Radius with separation of the Lower Ulnar Epiphysis. The lower end of the shaft of the radius had been driven through the skin, contusing the median nerve by a fall from a height. On the twenty-seventh day secondary hæmorrhage occurred from the ulnar artery which was cured by ligature of the brachial artery; on the forty-sixth day portions of the bone ends of the shafts of the radius and ulna were removed. The median nerve was still functionless and will need freeing, suturing, or grafting.

Mr. T. H. BICKERTON exhibited a patient on whom he had performed "Berlin's" operation for Entropion. The patient, a boy, aged 16¾ years, could never remember being able to see. He had been an inmate of a blind school for nine months. Until May, 1897, the eyelids were in a state of blepharospasm; the edges of the lids were completely inturned; the corneæ were dull-grey, there was a total absence of the glistening appearance normally present, and the vessels were freely permeating the pannus. The patient was practically blind, not being able to see his hand before him. "Berlin's" operation was performed in May, 1897; occasionally since a few erratic cilia had been destroyed by electrolysis. The patient left the blind asylum in October, 1898, being able to see and get about without difficulty. He could now (March, 1899) spell Jaeger 16.—Mr. RICHARD WILLIAMS objected to all operations which still further sacrificed tissue in old contracted lids. Operations such as Van Millingen's which aimed at eversion by adding new material to the contracted "tarsus" were, in his opinion, more sound. He obtained much the same object by a method of his own which he briefly described.

Dr. LESLIE ROBERTS read a paper on the Chronicity of Eczema.

MANCHESTER MEDICAL SOCIETY.—A meeting of this society was held on March 1st, Dr. W. J. Sinclair, the President, being in the chair.—Dr. Dixon Mann communicated the results of an investigation which he had made concerning the fatal accident which occurred in December last in one of the main sewers in Manchester in which two men lost their lives. The sewer in question conveyed the sewage from a district occupied by chemical works, some of which dealt with the by-products of coal gas manufacture. Immediately before the accident occurred the men perceived a rapid increase in the potency of the gas or vapour which appeared to be travelling down the sewer. Dr. Leech who happened to be passing at the time described the odour as resembling a mixture of coal-tar and mackintosh. All the men who were working in the sewer escaped except two who were suffocated. The investigation as to the cause of death was complicated by the fact that a number of chemical products came down the sewer making it difficult to identify the actual lethal agent. After discussing the poisonous and physical properties of such gases and vapours as might be expected to be present in the sewer Dr. Mann came to the conclusion that death was most probably due to sulphuretted hydrogen which had been suddenly developed in the sewer not far from the spot where the accident took place.—Dr. Donald read notes of a case of Ruptured Tubal Pregnancy. The patient who had been married twelve months menstruated regularly till Oct. 16th, 1898. In November and December there was a slight show. On Nov. 26th she had an attack of pain in the epigastric region which was thought to be due to gastric catarrh. A second attack of a similar nature, but more severe, occurred on Dec. 6th. On Dec. 26th she was seized with acute pain all over the abdomen. When first seen the patient was blanched and had a very weak pulse; the abdomen was distended and there were all the signs of peritonitis. The abdomen was opened on Dec. 27th and the abdominal cavity was found to be full of blood. The left tube contained a small embryo which had partially escaped through a rent in the wall of the tube. Fœtal movements could be distinctly seen. The tube was removed, the abdomen was washed out, and the wound was closed. The patient made a rapid recovery. The interesting point in the case was that the pain in the first two attacks was referred to the epigastric region and was mistaken for gastric catarrh and intestinal colic. The diagnosis of the case rested entirely on the clinical history and symptoms as nothing could be felt per vaginam and the abdomen was too distended to permit of a bimanual examination.—Dr. Judson S. Bury made some remarks upon a case of Gangrene of the Feet in Association with Peripheral Neuritis.—Dr. Delépine discussed the causes of the position of Primary Tuberculous Lesions of the Lung.

FORFARSHIRE MEDICAL ASSOCIATION.—A meeting of this society was held in the University College, Dundee, on March 1st, Dr. J. Mackie Whyte, Vice-President, being in the chair.—Dr. Halley read a paper on the Treatment of Perforating Ulcers of the Foot by Nerve Stretching, giving the notes and the result of this treatment in three cases. In all the ulcers had followed callosities and had gone on increasing; in two of the cases they were painless. In all three there was a certain amount of anæsthesia, marked sweating of the foot, or, in one case, feet affected and a varying amount of thickened epidermis. In none was there any affection of the central nervous system or of the circulatory system. In one case there was a history of peripheral neuritis due to alcoholism. The result in all three cases was distinct improvement and disappearance of the ulcer, but only for a time. The various methods of treatment of this trouble were then considered and the results following nerve-stretching reported by others were given. The opinion was then expressed that if nerve-stretching were performed early enough and if the patient were kept at rest a sufficiently long time the results of this treatment might be more satisfactory and that it ought to have at least a place in the treatment of perforating ulcers of the foot where there was no affection of the central nervous system or circulatory system.—Mr. Greig then read the first part of a paper on Two Years' Experience in the Surgical Out-patient Room of the Royal Infirmary, Dundee. Dr. Mowat showed a man, aged 38 years, with Molluscum Fibrosum. The tumours had existed for five years and were distributed all over the cutaneous surface of the body with the exception of the hairy scalp, the palms of the hands, and the soles of the feet.[1]—Professor Kynoch showed two Cysts of the Ovary removed by Posterior Colpotomy from a patient, aged 26 years, who had for three years complained of pelvic pain. One was a dermoid containing hair, bone, and a tooth.

FOLKESTONE MEDICAL SOCIETY.—A meeting of this society was held on March 8th, Dr. T. Eastes (Vice-President) being in the chair.—Dr. Dodd brought forward the

[1] The case is described in the Scottish Medical and Surgical Journal, vol. iii., No. 3.

question of the Liability of Medical Men having Actions for Damages brought against them after Signing Lunacy Certificates. He suggested that in all suitable cases the relatives should be asked to sign an agreement in which they covenanted to indemnify the medical man for all losses or expenses which might ensue if an action were brought against him. He thought it would be a great deterrent to any relatives taking action if they knew that the other members of the family would have to pay expenses. Even if one belonged to a medical defence society it would much simplify matters if an agreement of this kind were signed.—A memorial from the Corporate and Medical Reform Association was after some discussion ordered to lie on the table. It was, however, resolved that steps should be taken to ascertain the number of midwifery cases in the town which were at present attended by unqualified midwives, each member being asked to put down on an unsigned slip of paper the number of cases he attended in one year, then the whole would be added together and the total deducted from the registered birth-rate.—A resolution condemning the recent Vaccination Act forwarded by the Liverpool Medical Institution was adopted.—The following took part in the discussion: Mr. Barrett, Mr. Chambers, Dr. Dodd, Dr. Eastes, Mr. FitzGerald, Mr. Gilbert, Dr. Larking, Dr. Murdoch, Mr. Powell, and Dr. Sworder.—The usual social meeting was afterwards held.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—The sixth meeting of this society was held in the medical library of University College on March 8th, Mr. Roxburgh being in the chair.—Dr. Waldo showed cases of (1) Adenoma Sebaceum and (2) Tuberculosis of the Skin.—Dr. Shaw showed cases of (1) Spastic Diplegia and (2) Anterior Poliomyelitis, and (3) two brothers the subjects of Pseudo-hypertrophic Paralysis.—Dr. Michell Clarke showed cases of (1) Syringomyelia; (2) Disseminated Sclerosis; and (3) Progressive Muscular Atrophy.—Mr. E. C. Williams showed a case of Hemiplegia with Choreiform Movements in a child.—Mr. Munro Smith showed a patient on whom Erasion of the Knee had been performed.—Mr. C. A. Morton showed a patient and a specimen from a case of Excision of the Cæcum for Cancer.—Mr. T. Carwardine showed patients on whom Excision of the Rectum by the Sub-periosteal Operation had been performed.—Mr. Stack showed a young child with Premature Menstruation.—Dr. F. H. Edgeworth read a paper on the Treatment of Simple Cases of Bronchitis.—Mr. A. W. Prichard read a paper on a case of Hæmatometra.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—A meeting of this society was held on March 6th at 40, Leicester-square, W.C., Mr. J. Fairbank, President, being in the chair.—Mr. Ashley Barrett read a communication on the Difficult Eruption of Third Molars.—A very interesting paper was read by Professor F. T. Paul entitled "A Contribution to the Histological Study of Dentine." The paper was illustrated by some excellent lantern slides and beautiful microscopical sections.—A brief discussion followed in which Mr. Mummery, Mr. Tomes, Mr. Hopewell Smith, Mr. Storer Bennett, Mr. F. J. Bennett, and Mr. Leon Williams took part.

THE SAILORS' HOSPITAL FOR CARDIFF.—The Mayor of Cardiff has met with a good response as a result of his appeal for the erection of a permanent sailors' hospital for that town and therefore only £4000 are now required to obtain the generous offer of £10,000 from the Marquess of Bute. The Mayoress is about to hold a large bazaar in aid of the hospital shortly at the Town-hall when it is hoped that about £1500 will be raised.

THE VACCINATION ACT (1898).—At a recent meeting the Sanitary Committee of the Newport (Mon.) Borough Council passed a resolution favourable to the repeal of the clauses exempting conscientious objectors under the new Vaccination Act.—At the meeting of the Teignmouth District Council held on March 7th under the presidency of Colonel Morrison, it was decided to earnestly request the Local Government Board to lay before Parliament the question of reconsidering the vaccination laws with a view to making vaccination compulsory.—At a meeting of the Bath Sanitary Committee held on March 6th a resolution as to the desirability of memorialising the Local Government Board relative to the repeal of the conscience clause in the recent Vaccination Act was adopted *nem. con.*

Reviews and Notices of Books.

Dr. Southwood Smith: a Retrospect. By his granddaughter, Mrs. C. L. LEWIS. London and Edinburgh: Blackwood and Sons. 1898. Price 6*s*.

IT is now nearly 40 years since the death of Southwood Smith and his name is hardly known to the present generation; but in the early part of this century his name was as well known and as much disliked by those wedded to the peacefulness of official routine as it was loved by others, especially in his home circle, amongst whom was the author of his biography, his granddaughter Mrs. Lewis.

Born in 1788 he was destined for the ministry. But the Calvinist doctrines of his sect were little in keeping with his broad philanthropic views, and although the renunciation of these doctrines entailed the surrendering of a scholarship (the Broadmead Benefaction) he felt himself bound, at the early age of 19 years, to break away from his early traditions and face the displeasure of the principal of his college, Dr. Ryland. This was followed by a period of great penury, but with the aid of Anne Reade, a young lady possessing the rare combination of great personal beauty with sweetness and strength of character, who afterwards became his wife, he faced his difficulties manfully. The chastening hand of sorrow was laid heavily on him in these days and perhaps accounted for his subsequent strength, for in 1812 his young wife died.

He entered the Edinburgh University as a medical student in 1813, where his early religious training led him to gather round him a little company for service each Sunday, and he seems to have combined throughout life the "double capacity," as he puts it, "of physician to body and soul." After a short period of general practice at Yeovil he came to London in 1820 where he soon formed a considerable private practice and was appointed physician to the London Fever Hospital. It was in this way that he was led to study epidemic diseases and he was the first to prove, by a series of articles about 1822, that all epidemic diseases are not necessarily contagious from person to person in the sense of being conveyed through the air. In this and other ways he arrived at the conclusion that many of the most fatal diseases were due to defective sanitary conditions. During the terrible outbreak of Asiatic cholera in 1831 he wrote very strongly against the quarantine laws, thereby incurring the displeasure of the Royal College of Physicians of London, who advised that the sick should be herded together, their houses labeled, and that a strong body of troops or police should, if necessary, be drawn up around the affected places.

The abhorrence of the public of dissection and the difficulty of obtaining subjects for anatomy (which resulted in "body-snatching" and "resurrection" men) corresponded in those days to the agitation against vivisection and the difficulty of carrying out research in our own time. It was Southwood Smith who first called public attention to these evils and pointed out the paramount necessity of a supply of subjects, suggesting as a remedy the appropriation of workhouse inmates dying unclaimed by relatives. Three years later and only after the horrible discovery that the ruffians Burke and Hare had resorted to murder for the purpose, legislation was adopted which has been in operation ever since. It was probably in consequence of Southwood Smith's activity in this direction that Jeremy Bentham left his body to him and to two other friends for purposes of dissection. Southwood Smith delivered an oration over the body at the Webb-street school of anatomy on June 9th, 1832, amid impressive surroundings — "disciples and admirers around the body of the deceased philosopher

within a small circular room without windows and a thunderstorm raging outside."

It was, however, in the cause of sanitary reform that Southwood Smith achieved greatest results. In his capacity of physician to the London Fever Hospital he noticed that year after year the wards were supplied by cases of fever from the same courts and lanes, often from the very same house. In 1830 he set forth in his Treatise on Fevers that the preventable causes of "fever" consisted of filth and overcrowding; but it was not until seven years later that the opportunity of doing some real good occurred. In this year he was appointed by the Poor-law Commissioners to report on the homes of the poor in the Eastern districts of London and was able to bring before them the almost incredible state of overcrowding and dirt in which the poor of those days lived. As an instance it may be mentioned that many of the houses at Bethnal-green were grouped around a piece of water known as Wellington Pond, described in Southwood Smith's report as a pond "into which the above sewer drained. Persons who have accidentally fallen into it though taken out immediately have all died."

This was the real initiation of the great era of sanitary reform and reform of the conditions under which the masses lived, a movement which spread over the middle decades of the now closing century and with which the names of Southwood Smith, Arnott and Simon, Lord Ashley (afterwards the Earl of Shaftesbury), Charles Dickens, Louisa Twining, and "THE LANCET Commission" are connected—a miscellaneous collection of names but a power for good which can only fully be realised by reading the description of the conditions under which the masses lived in 1830 given in the appendix of the book before us.

Southwood Smith next turned his attention to the workhouses where he found that out of 104 children in one workhouse 89 had recently been stricken with fever, an epidemic which he rightly attributed to the fact that they inhabited the same room day and night, which allowed only about 100 cubic feet per head and was practically without any ventilation.

He also visited the mines, and the better to enforce his argument had pictures drawn on the spot to illustrate the abuse of child labour in mines. It was upon this report that Lord Ashley's Bill for the better regulation of labour in mines was based.

The words in which Sir Robert Inglis, M.P., afterwards described his services to mankind may here be quoted as being briefly and accurately descriptive. "The country was indebted to Dr. Southwood Smith and Mr. Slaney for its first knowledge of the real condition of the poorer classes. Their unwearied labours for the instruction of the legislature and the public on these subjects were unrewarded by emolument or fame, though the value of their services was beginning to be appreciated and they would be more highly estimated by posterity than in their own day."

Among the numerous reforms Southwood Smith took a large share in introducing were the following: the non-employment of women and young children in mines; the proper supervision and schooling of factory children; the abolition of intra-mural burial; the establishment of sanatoria (or home hospitals and nursing homes) in all our large towns; the provision of drainage and water-supply for the houses of the masses and the erection of "model dwelling-houses" for the poor; the founding of the "Health of Towns' Association," the outcome of which was all the earlier statutes dealing with sanitary reform; the founding of "The General Board of Health" as a Government Department; the passing of the Public Health Act of 1845 and thereby the reduction of the death-rate of the metropolis from 26 per 1000 (in the early "forties") to 19 per 1000 in 1860; and the institution of the system of house-to-house visitation as a modification of quarantine measures and other means of isolation and prevention in the great cholera epidemic of 1848-49.

Double labour of this kind, his philanthropic work carried on side by side with a busy private practice, necessitated long laborious days, and we read that he habitually started his day's work at five o'clock (and often at four or three o'clock) each morning. It is surprising that his constitution could stand this strain through a long life; but, unlike many other reformers, he lived to see and rejoice in the effects of the reforms he had instituted, dying peacefully at Florence at the age of 73 years. In nothing did he rejoice more than the fact that his life work was being carried on, though under very different conditions from those under which he started, by his granddaughters Miranda and Octavia Hill. It is curious how the practical faculty of doing good should run through a family in this way. The work before us is written by his granddaughter and its interest is greatly added to by the fact that she was brought up by him, and during all the earlier years of her life his home was hers.

We fail to find any of that bias which one might not unnaturally expect in a biography written under such circumstances and can heartily recommend the work to those who care to learn something of the history of sanitary reform described in the form of an interesting narrative. The book is nicely got up and contains several good illustrations.

A Text-book of Physiological Chemistry. By OLAF HAMMARSTEN. Translated by JOHN A. MANDEL from the second Swedish edition and from the author's enlarged and revised German edition. Second edition. New York: John Wiley and Son; London: Chapman and Hall, Limited. 1898. Pp. 705. Price $4.

THE author of this work is the professor of medical and physiological chemistry in the University of Upsala and the translator is the adjunct professor of physiological chemistry in the University and Bellevue Hospital Medical College, New York. The translation is distinctly creditable to the translator and the book, in spite of the nationality of its author and its translator, is written in clear and good English. The work is of a practical character and suitable for reference when carrying out laboratory preparations, while the methods for the detection and quantitative estimation of most of the substances found in the organism and its excretions and secretions are well described. The plan of the work is much in a line with that adopted in English standard works on the subject. The introductory chapter deals with Analytical and Synthetical Processes, the building up and breaking down of complex bodies. In this section organised and unorganised ferments are necessarily dealt with. Then follow chapters on Food Substances, the Proteids, Carbohydrates, and Fats, until in Chapter V. the Animal Cell is discussed. In proper sequence come next under consideration the blood and then the chyle, the lymph, and the action of the liver as an assimilator and as a refiner of the blood coming from the digestive tract. In Chapter IX. which follows the Phenomenon of Digestion is described. This section and those on the Blood and Urine form the lengthiest chapters. The chapter on the Chemistry of the Urine is admirably written, as is also that on the Respiratory Processes. In spite of copious references to the work which has been done on the latter subject we are surprised to find that no allusion is made to the most elaborate researches of our own countryman, Dr. Marcet, F.R.S., who is now recognised as one of the first English authorities on the phenomena of respiration in man. The last chapter on Metabolism is of a practical kind and an excellent essay on the subject, really forming a valuable digest of all which has been lately said and done. The book concludes with a series of food tables embodying animal and vegetable foods,

malt and other alcoholic liquors. The merit of this work is that it does not deal with a difficult subject ponderously but in a way that should be clear and intelligible to the class of reader—namely, the medical student—for whom it is primarily intended.

Text-book of Medical and Pharmaceutical Chemistry. By ELIAS H. BARTLEY, B.S., M.D., Ph.G., Professor of Chemistry and Toxicology in Long Island College Hospital. Fifth edition. Revised and enlarged. London: H. Kimpton. 1899. Pp. 738.

IT is not easy to write for the benefit of the student of medicine a text-book within the bulk of that before us which will embrace not only pure chemistry but also physics, physiology, and pathology so far as these refer to chemistry in accordance with the requirements of his study. Yet the author has succeeded in stocking his book with most of the information of the kind indicated in a volume which is certainly not beyond the dimensions of a companion or manual. The first edition was published in 1885 and the present is the fifth edition, so that in a little over 12 years five issues have been demanded. This of course is evidence of the esteem in which the book is held. It is written essentially for medical students in the States during their attendance upon lectures. This in no way detracts from its use as a lecture companion in this country as well as a book of reference. The author is evidently fully aware of the necessity of making the student feel how important a knowledge of chemistry is in connexion with medical study. He does not burden the reader with a host of irrelevant facts, but, on the other hand, amplifies those points in chemical structure and composition which border on chemistry and physiology and which will be found a help to clinical study. The work is divided into five parts, Part I. dealing with Chemical Physics, Heat, Light, and Electricity; Part II. with Theoretical Chemistry (the mathematics of the science); Part III. with Inorganic Chemistry; Part IV. with Organic Chemistry; and Part V. with Physiological and Clinical Chemistry. Quite apart from other sections the last might form a separate handbook on practical pathology and physiological chemistry since it is so serviceably and suitably treated. The official names of medicinal chemicals are given according to both the United States and the British Pharmacopœias. On the question of nomenclature the author has not employed the abbreviated method suggested by the American Association for the Advancement of Science. He adds, however, an appendix embodying the rules drawn up so that students may become acquainted with the proposed changes. We have found one or two trifling misprints in the book, as, for instance, HCl_2 on page 111 and "celluloes" for cellulose on page 607. The analytical processes described are good, but the author appears to ignore what is acknowledged to be the best method, as it is the most scientific, for the estimation of uric acid in urine—namely, that devised by Hopkins. In this process the uric acid is precipitated as acid ammonium salt with ammonium chloride, the pure salt so separated being titrated with standard permanganate in the presence of diluted sulphuric acid. The plan of the book in regard to the order in which the facts and theories of chemical science should be presented to students—namely, theory first and facts afterwards—is one which we are rather inclined to approve. The author has found space for a short description of the newly discovered elements, argon and helion. The style is clear and intelligible. As we have already indicated the author has dealt dexterously with a mass of facts retaining as far as possible only that important portion of the science which is of direct concern to the medical student. The requirements of the medical student are fully understood, which is not surprising since Dr. Bartley has had experience as a teacher in Long Island Hospital for a number of years.

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1. *Mad Humanity, its Forms, Apparent and Obscure.* By L. FORBES WINSLOW, M.B. Cantab., D.C.L. Oxon. London: C. A. Pearson, Limited. 1898. Pp. 450. Price 7*s.* 6*d.*
2. *Primer of Psychology and Mental Disease.* By C. B. BURR, M.D. Second Revised Edition. For Use in Training-schools for Attendants and Nurses. Philadelphia: F. A. Davies Company. 1898. Pp. 116. Price 2*s.*
3. *The Story of the Mind.* By Professor JAMES MARK BALDWIN. London: Geo. Newnes, Limited. Pp. 260. 1899. Price 1*s.*

THE above works are all popularly written for the information of general readers or for nurses and attendants on the insane, or for students commencing psychology. The first work portrays some of the commoner and more superficial appearances and symptoms of prevailing types of insanity with the aid of photographs of lunatics. Dr. Winslow believes that the increase of insanity in the past decade, as shown in official lunacy returns, must be real rather than apparent. Increased alcoholic intemperance is given the first place in the causation of mental disease. A sketchy account of "madhouses" and their past history and of the present condition of lunacy opens the work; curiously enough no account is given of the philanthropic work of Pinel in France or Tuke in England, who were pioneers in the "humane" movement of lunacy reform. The writer thinks that "in order to become a useful *physician* it is necessary to become a good *metaphysician*," and plentifully is the text mingled with discursive matter and digressions illustrative of this attitude; and then the author invokes poetry to his aid. There is much "padding" of this sort throughout the book. Sensational accounts are given of "strange lunacy cases" and of the "madness of genius." These are scarcely satisfactory from the critical and scientific standpoints. As examples of the "madness of genius" there are mentioned Samuel Johnson, Schiller ("love made Schiller mad" is the writer's dictum), Robert Burns (an example of dipsomania and melancholia), Shelley (a case of demonomania), &c. Even the Wizard of the North is not spared: the vigorous sane genius of the "Waverley Novels" and "Marmion" is made to illustrate this madness of genius in company with Shakespeare; and after moralising and poetising on the "mental degeneration of the human race" the book concludes with a characteristic poetical quotation from Bryant. The work cannot be commended to the physician, the alienist, or the general reader.

Dr. Burr's Primer has reached a second edition within four years. It gives an outline of psychology (27 pages), followed by brief and simple descriptions of the ordinary types of insanity (33 pages) such as come under the observation of asylum nurses and attendants. Then follows a concise but practical account of management of cases, under the headings of Feeding, Nursing and Personal Attendance; Exercise, Employment and Diversion; Sleep and Rest; Faulty Habits; Mechanical Restraint; and Guarding against Suicidal and Violent Impulses, with homely and good advice on these points. Some general suggestions and a useful index conclude this little work which may be recommended to nurses and attendants in public and private asylums.

Professor Baldwin's work is conceived in a true scientific spirit and is cast in a good mould. The "Story of the Mind" in its manifestations in the adult, but especially in the young, is well told. The author is well known for his valuable contributions to psychology in the special direction of "Mental Development in the Child and the Race." The scope of the work is, for a primer, ambitious. Under such

headings as the Mind of the Animal, the Mind of the Child, &c., charming accounts and descriptions are given which while popular are also accurate and suggestive. Chapter V., on Child Psychology, may be read with profit and pleasure even by our psychologists and neurologists. Simple experiments in psychological time-measurement are given. The short chapters devoted to education and suggestion (including hypnotic conditions) in children and adults and the training of the mind in childhood may also furnish valuable hints to teachers in our elementary schools. Professor Baldwin's philosophy is cheery and optimistic; we have seldom read a more thoughtful and suggestive little production. It can be strongly commended to students of psychology, to the general reader, and to all who take an interest in the study, training, and mental upbringing of the young. The low price at which this little work is produced is remarkable and the general get-up of the book is a credit to the publishers.

LIBRARY TABLE.

A Code of Rules for the Prevention of Infectious and Contagious Diseases in Schools. Issued by the Medical Officers of Schools Association. Fourth edition. London: J. & A. Churchill.—We learn from the preface to this useful little book that eight years have elapsed since the publication of the last edition and owing to the many changes which have occurred and advances which have been made in sanitary and medical science the statements in the book have been thoroughly revised. Thus, the quarantine periods allotted to small-pox and scarlet fever have been reduced but special attention is drawn to the fact that disinfection of both the patient and his clothing must be carried out at *the commencement* of the quarantine period. In the case of diphtheria and ophthalmia it is pointed out that only a bacterioscopic examination will in many instances afford opportunity for definite diagnosis.

Bailey's Index to the Times. Published monthly. London: Eyre and Spottiswoode. January and February, 1899. Price 3*s.* per number.—This is one of the best and fullest indices which we have seen, the cross-indexing being particularly good. This point has not been so fully carried out in the February number as in the January issue owing to the necessity for saving space on account of the increased matter due to the meeting of Parliament. But even so the index is quite full enough for all practical purposes.

JOURNALS.

The Quarterly Journal of Microscopical Science. Edited by E. RAY LANKESTER, F.R.S., ADAM SEDGWICK, F.R.S., and W. F. R. WELDON, F.R.S. With 10 Lithographic Plates and Engravings on Wood. London: J and A. Churchill. February, 1899. Price 10*s.*—This part contains only two articles, the first by Arthur Dendy, D.Sc., Professor of Biology of Canterbury College, New Zealand, entitled Outlines of the Development of the Tuatara Sphenodon (Hatteria) punctata (which occupies nearly the whole of the number), and the other by J. W. Jenkinson, M.A., an Abstract and Review of the Memoir by G. Hieronymus on Chlamydomyxa labyrinthuloides. Dr. Dendy was induced to study the development of the Tuatara by the examination of the parietal eye in some embryo Australian skinks which present an optic cup similar to that of the paired eyes. He has with the coöperation of Mr. Henaghan, the principal keeper on Stephens Island, secured a magnificent series of embryos the majority of which have been hardened in Kleinenberg's picric acid after removal from the egg and preserved in alcohol. The island where the Tuatara is found is densely covered with scrub of various kinds; the soil is good on the ridges and in the gullies it is of a light brown colour, largely composed of oxide of iron. Petrels and the lizards are both very numerous, and occupy the same hole, living together in peace. The breeding season commences in November on Stephens Island and each female lays about 10 eggs. The males are much more frequently met with than the females. Dr. Dendy thinks the eggs take about 12 months to develop and that they are laid in November. We must refer our readers to the original for the details of the development of this lizard. They are there very completely given and the description is illustrated by 10 plates with numerous drawings on each.

Archives Générales de Médecine.—This old-established journal now makes its appearance under the form of a new series commencing last January and concurrently with this alteration in the style of issue valuable improvements have been introduced. It is brought out on the 1st of each month in parts containing 128 pages, illustrated with plates and engravings, and forms at the end of the year two volumes of about 800 pages each. The editor is Dr. Émile Boix, 13, Rue des Saussaies, Paris. The publishers are MM. Asselin et Houzeau, 2, Place de l'École de Médecine. The annual subscription for the postal union is 25 francs. The articles in the March number are on Paralytic Vertigo (by Dr. F. Gerlier); on the Influence of the Nervous System in Diseases of the Skin (by Dr. E. Leredde); on Feebly-acting Chronic Localised Infections (by Dr. J. Brault); on a case of General Staphylococcus Infection (by Dr. J. Marty); on Vascular Lesions (by Dr. E. Coulon); and on the Anatomy of the Lung (by Dr. E. Rabaud). According to Dr. Gerlier paralytic vertigo especially attacks shepherds who milk cows and has only been discovered in Switzerland and Eastern France within the last 25 years, but it is endemic in Japan.

Revista Medica de S. Paulo.—In the January number of this Brazilian journal Dr. Adolpho Lutz continues his articles on the Bites and Stings of Various Insects; Dr. Pedro de Almeida Magalhães gives the first part of a paper on Heart Murmurs in Beri-beri, with an account of five cases; and Dr. Victor Godinho and Dr. Guilherme Alvaro write on the Treatment and Prophylaxis of Tuberculosis.

La Grèce Médicale.—In the February number Dr. Timoleon Triantaphyllides of Batoum continues his articles on the Malarial Diathesis in the Caucasus; Dr. N. Saltas of Aïvali describes a case of Progressive Pernicious Anæmia cured by subcutaneous injections of citrate of iron (4 c.c. of a 4 per cent. solution every second day for a period of 38 days); Dr. Mantzavinos of Laurium gives details of an incomprehensible case in which a girl, 18 years of age, made an apparently unfounded charge of rape against a man who had previously been requested to marry her but had refused to do so; there was recent laceration of the hymen and on examination a hen's egg was found in the vagina.

Rivista Universale di Medicina, Chirurgia e Scienze Affini.—We have received the first two numbers of this new Italian monthly journal which, as its name indicates, makes a special feature of selections from contemporary periodicals. The original articles include a long paper, not yet concluded, by Dr. Enrico D'Anna on the Application of Electricity in Disorders of the Blood-vessels, such as phlebangiectasis, erectile tumours, varix, aneurysm, and angioma. The journal is conducted by Professor Vincenzo Morini and Dr. A. Bretschneider, consists of about 60 pages, and is published on the 15th of each month at 11, Via Firenze, Rome.

Clinica Ostetrica.—This journal, the first number of which appeared last January, is described in the sub-title as a review of Obstetrics, Gynæcology, and Children's Diseases. It is edited by Professor Felice La Torre of the University of Rome, contains 56 pages, and is published monthly by the firm of I Fratelli Capaccini, Porta Cavalleggeri, Rome. The

original articles in the January number are on Tuberculous Peritonitis in Women (Professor F. Durante), on the Suckling of the Infant by its Mother (Dr. F. S. Rocchi), on the Etiology of Disorders of Digestion in the Infant (Professor L. Concatti), and on Insanity in Women during Pregnancy, Childbirth, and Suckling (Dr. B. Vespa).

Mercy and Truth.—In the March number Mr. Jukes contributes a further paper on his work at Dera Ghazi Khan in the Punjaub, together with a plan of the Maxwell Gordon Memorial Hospital. The principal illustration is a portrait of the late Bishop J. S. Hill of West Africa.

New Inventions.

AN ALTERNATING DOUCHE.

VARIOUS contrivances have been suggested for the application of rapidly alternating heat and cold to different parts of the body. An instrument of this kind for the treatment of chronic prostatitis has been introduced by Dr. Scharff of Stettin under the name of the "thermopsychrophor" and it was briefly noticed in THE LANCET of Nov. 12th, 1898 (p. 1305). Another apparatus on a similar principle, devised by Dr. Heinrich Schmidt and intended for use in gynæcology, is represented in the annexed illustration. It consists

of two irrigators joined together, one for hot and the other for cold water. To each is attached a long piece of india-rubber tubing, both of which meet in a three-way stopcock. A nozzle fitting on the stopcock is inserted into the vagina, and the hot douche is allowed to run for about half a minute, after which the tap is given a quarter of a turn and the hot is then succeeded by the cold douche, which is continued for a quarter of a minute. This should be done, using the hot and cold douches alternately, four or five times consecutively, and the process repeated several times daily. Of course, the water may be either medicated or not, at the discretion of the practitioner in attendance. Dr. Schmidt recommends that at the outset the temperature of the water should be 86° F. in the one irrigator and 64° in the other. He states that the apparatus may be obtained from any druggists' sundriesman or any dealer in surgical instruments.

THE SAFETY VALVE BOTTLE.

A SPECIMEN of a new pattern of bottle which has been introduced by Messrs. Arnold and Sons of West Smithfield has been sent to us for inspection. The construction of the "Safety Valve Bottle" is quite simple and will be readily understood from the accompanying illustration. The rubber ring which is outside the neck of the bottle is pressed down by the cover and held air-tight by the clamp. The clamp is easily removed by lifting the lever without injuring rubber, cover, or clamp and can be used over and over again. The bottle is made in different sizes and is very suitable for ligatures, sponges, ointments, powders, &c.

KANTHACK MEMORIAL FUND.

THE following is a list of the subscriptions which have been received for the Kanthack Memorial Fund, concerning which we have already written in THE LANCET. Dr. J. H. Drysdale, 25, Welbeck-street, W., is acting as honorary secretary.

	£	s.	d.
Mrs. L. Andrews	5	5	0
Mr. James Berry	3	3	0
Mr. Harrison Cripps ...	2	2	0
Dr. H. J. May	5	0	0
Dr. W. P. Herringham	2	2	0
Dr. F. E. Batten	1	1	0
Mr. E. W. Willett... ...	5	5	0
Dr. W. S. Church... ...	10	10	0
Mr. H. G. Read	1	1	0
Sir Thos. Smith, Bart....	10	10	0
Sir James Paget, Bart..	2	2	0
Dr. W. S. A. Griffith ...	10	0	0
Dr. F. W. Andrewes ...	5	5	0
Mr. D'Arcy Power ...	2	2	0
H. W. P.	5	5	0
Dr. H. M. Fletcher ...	10	10	0
Dr. A. E. Garrod	5	5	0
Mr. P. Furnivall	5	5	0
Mr. C. P. White (Leeds)	5	5	0
Mr. W. G. Heasman ...	5	5	0
Mr. C. A. Ballance ...	5	5	0
Mr. G. E. G. Metcalfe	1	1	0
Mr. H. Rundle	2	2	0
Dr. G. Saunders, C.B.	2	2	0
Mr. D. R. P. Stephens	1	1	0
Anonymous	10	0	0
Dr. L. Thorne Thorne	1	0	0
Mr. R. F. Jowers	2	2	0
Dr. C. P. Handson ...	1	1	0
Mr. F. D. Bennett ...	1	1	0
Dr. E. W. Roughton ...	1	1	0
Dr. A. McC. Weir ...	1	1	0
Dr. W. D. Stone	1	1	0
Mr. G. N. Stephen ...	1	1	0
Surgeon-Major-General W. R. Rice	10	10	0
Mr. H. A. Ballance ...	1	1	0
Dr. L. G. Glover	2	2	0
Dr. J. A. Ormerod ...	3	3	0
Sir Felix Semon	10	10	0
W. S.	1	1	0
Mr. W. P. Digby	1	1	0
Dr. S. J. Ross...	1	0	0
Dr. W. H. Maidlow ...	0	10	6
Surgeon W. J. Codrington, R.N.	0	10	0
Mr. W. G. Clark	10	10	0
Dr. H. J. Capon	1	1	0
Mr. H. B. Maingay ...	1	1	0
Dr. H. Willoughby Gardner	3	3	0
Dr. T. S. Stevenson ...	2	2	0
Mr. H. Huxley	5	0	0
Dr. G. R. Murray... ...	2	2	0
Mr. H. T. Butlin, D.C.L.	10	10	0
Dr. F. de Havilland Hall	3	3	0
Mr. J. Westlake, Q.C....	5	0	0
Dr. J. A. Hayward ...	5	5	0
Dr. S. E. Wynter... ...	2	2	0
Dr. J. H. Lightbody ...	2	2	0
Dr. G. H. R. Holden ...	1	1	0
Dr. A. Kuttner (Berlin)	10	0	0
Dr. F. P. Weber	2	2	0
Dr. T. M. Legge	5	0	0
Dr. T. Lauder Brunton, F.R.S.	10	10	0
Dr. G. C. Taylor	1	1	0
Dr. W. Langdon Brown	1	1	0
Dr. Sidney Martin, F.R.S.	3	3	0
Dr. C. Butler...	5	5	0
Dr. A. W. Blackwell ...	0	10	6
Dr. Lovell Drage	5	0	0
The Hon. G. Scott ...	2	2	0
Captain H. A. Berryman, R.A.M.C.	2	2	0
Dr. T. J. Horder	1	0	0
Total...	£267	10	0

THE BRISTOL ROYAL HOSPITAL FOR CHILDREN AND WOMEN.—The thirty-third annual meeting of this institution was held on March 10th under the presidency of the Mayor. The report stated that during 1898 3148 patients had been treated, and of these 636 children and 39 women had been admitted as in-patients. The financial statement showed that the total expenditure, which includes the Convalescent Home in connexion with the hospital at Weston-super-Mare, amounted to £4048. The receipts were £2900. The accumulated deficit of the last four years now amounted to £2771.

THE LANCET.

LONDON: SATURDAY, MARCH 18, 1899.

THE questions raised by the deputation from the Council of the Poor-law Medical Officers' Association recently received by Dr. FARQUHARSON, M.P., afford food for reflection to the framers of statutes, to guardians of the poor, to the medical profession in general, and to the Poor-law medical service in particular. The principal object of the deputation was to draw the attention of the legislature to certain results which have ensued from the operation of the Poor-law Superannuation Act (1896) to the serious detriment of the Poor-law Medical Service. It is sufficiently heart-breaking work to labour amongst the poorest of the poor who need food more than medicine; but if we add to this the lowest of possible salaries and the most critical of masters the lot of the parish medical officer is certainly not an attractive one. As regards the salary, it is fixed at a figure considerably lower than any payment made for similar work and wholly out of proportion to the duties performed or the trouble and responsibility involved in their execution. In many of the eastern districts of London the work engages nearly the whole time of one assistant. It not infrequently happens that for £30 or £40 a year a medical man is required to attend several times a week at some appointed place and be at the beck and call, at all hours of the day and the night, of the relieving officer and the poor. And woe betide the hard-working medical officer who thinks at 9 P.M. perhaps that he will have his dinner before he attends to a summons which might probably have been equally well sent in the morning.

These things may well afford food for reflection to the whole profession, for it is an ominous sign of the times that there is no dearth of candidates for these posts. But if a man be asked why he applies for a position like this he probably says, "As an introduction to practice." Another, if he be asked why he retains a post of this kind replies, "To prevent another medical man from diminishing my meagre livelihood by setting up in the neighbourhood." The guardians are probably not aware of these considerations, but, taking full advantage of them, they adopt a "market value" line of argument and question the need of giving a higher salary when candidates can be procured at a lower one. These gentlemen forget that by supplying really competent medical aid for the poor they shorten the time during which the poor remain on the rates, and that the greatest inducement to really efficient service is to be found in the contented mind of an official satisfied with his lot and his remuneration.

Until lately there was one redeeming feature in the conditions of the Poor-law medical service—namely, the small pension to which a medical practitioner who had been for more than 10 years in the service could look forward in his declining years. It is true that before the enactment of the Poor-law Officers' Superannuation Act this pension was given at the option of the guardians who happened to be in office at the time of his retirement, but the medical officer could generally rely on a just consideration at their hands if his relations with them were fairly amicable. However, it was hoped that the passing of this statute would improve matters in this respect, by giving the medical man a right to a pension which before was optional. The amount to which he is entitled under this statute is based on the length of his service—one-sixtieth of his average salary and emoluments for each year of service, whether under the same or a different board of guardians. In order to meet this charge on the rates a certain percentage is deducted compulsorily from each officer's salary at the time when it is paid—usually every quarter.

This statute was very carefully drawn up and its framers were confident of its beneficent effects for all concerned. However, in actual practice it is found to fail in the very direction where it was expected to accomplish most—at least, so far as the district medical officers are concerned—owing to the action of certain boards of guardians. So far is this the case that unless something in the way of amendment of the law is speedily introduced a very grave injustice will be done to a very deserving and already underpaid body of men, and serious harm to the service generally.

As regards the financial basis contemplated by the Act—which it may be remarked in passing applies to all Poor-law officers, medical and non-medical alike—the deductions from all officers' salaries do not go to form a special fund, but are entered in the debtor and creditor account of the parish to which the official belongs, any pensions payable at the time appearing on the other side. It was contemplated that in the long run the one would balance the other. But an officer is entitled to claim as a basis of his pension any years of service previously spent in other parishes, and the guardians with whom an official is serving at the time of his retirement, who thereafter pay the pension, seem to imagine that they are paying a charge which properly belongs to another board At any rate, when the election of a medical officer is in question the guardians in many instances have, it is alleged, taken this question of the possibility of superannuation into consideration in a manner which seems to us to be unjustifiable—a manner which was not contemplated in the framing of the Act, and one which is certainly not conducive to the efficiency of the Poor-law medical service. It is alleged, for instance, that certain boards have selected younger candidates who have not previously held office under the Poor-law and who could not therefore claim such large pensions as those who had had previous service. Now, other things being equal, it is certainly not conducive to the efficiency of the Poor-law to have inexperienced and untried officials. Medical work in connexion with the Poor-law requires considerable experience for its efficient performance. Not that medical science itself is different, but, to mention one aspect alone, the detection of, and dealing with, malingerers, to decide exactly how much of a person's illness is assumed, and precisely what amount of work he or she is fit for, requires not only a skilled and intelligent, but also an experienced, judgment. Many such

problems form part of the daily work of the Poor-law medical officer.

But there is yet another way in which the Superannuation Act seems likely to jeopardise the best interests of the service and to fall most unjustly on the present holders of office, especially in certain rural districts. When a Poor-law medical officer does not reside within his district it is the custom that his appointment shall only be for a limited time—usually one or three years—at the end of which it has hitherto been customary for him to be re-elected as a matter of course. Now, undoubtedly it is more convenient, other things being equal, that the medical officer should reside inside, or within easy access of, his district; but in certain places, especially in country parishes, this is not possible or expedient. A large number of district Poor-law medical officers have held office under these conditions for many years and the arrangement has worked satisfactorily for all concerned. Their re-election each year has been merely a matter of form. But since the introduction of the new statute it has been alleged that in several such instances where a medical man has had a long and blameless record, but where he was approaching the age at which his pension would become due—namely, 60—his re-election has not taken place, and consequently he has lost all chance of his pension. These posts are nearly always held by men settled in practice who cannot, therefore, seek office elsewhere, even if there were a chance of their election, which, as we have just seen, is very slender. The extreme injustice of such a proceeding is obvious. Very often special arrangements have been made by the medical officer and a special assistant has been engaged for the work; moreover, compulsory deductions have been made from the officer's salary in view of the pension to which he would be entitled.

How the most carefully framed statutes may fail in actual practice is a fact well known to legislators. But we venture to think that a greater flaw than this has rarely been revealed. The remedy lies in two directions. In the first place, the deductions from salaries in view of pension from all parishes should go to form a common fund. In this way one parish could not feel that it was paying a pension which really belonged to another. Secondly, the limitation of office to a short period should be abolished. If a medical officer is eligible both in qualification and residence to discharge the duties for one year there seems to be no adequate reason why he should not be eligible to discharge them for a longer time. In general terms a very large proportion of the problems connected with the administration of the Poor-law are of a medical nature, and certainly it is a short-sighted policy which selects as a medical adviser to a board of guardians a young medical man wholly inexperienced in such matters, or which constantly changes such adviser as soon as he is beginning to learn his work. Such a state of matters as we have here depicted is detrimental to the best interests of the Poor-law service and unjust to the individual. It certainly requires the attention of the legislature without delay.

IT is now nearly 10 years since the disease known as "influenza" appeared in epidemic form in this country, after an interval of 43 years. There are difficulties in ascertaining the exact chronological order in which different parts of the country were attacked with the complaint, for although cases were not actually recognised and reported until towards the end of December, 1889, yet subsequent reflection convinced many medical men that they had met with cases considerably anterior to that time. Since that epidemic the community has been rarely, if ever, entirely free from the disease and recrudescences have from time to time occurred, although they have not assumed such proportions as were reached in the early part of 1890. It forms an interesting study, although not a consoling one, to look back over the 10 years in order to ascertain how far medical science has advanced as regards the recognition, treatment, and prophylaxis of the malady.

Dr. SISLEY'S book on "Epidemic Influenza" and the able report presented to the Local Government Board on the epidemic of 1889-90 by Dr. H. F. PARSONS give an excellent *résumé* of the information which had been collected up to that time. The fact that this epidemic was the first that had visited this country since the establishment of a central health authority renders such a report particularly interesting. The first point which strikes us is that the type of the disease has undergone constant alterations, and the varieties of symptoms which present themselves are so numerous that it is difficult to recognise them as forming instances of the same disease, the clinical course of which during the epidemic just referred to was so characteristic. Experience has shown that the complications are so diverse that their importance outrides that of the original malady, and indeed they may be even mistaken for it and thus the difficulties of diagnosis may be manifestly increased. Various hypotheses were suggested as to the etiology of epidemic influenza, such as the theory that it was due to climatic conditions or to some "aerial poison" or "miasm"; other observers contended that it was zoogenous in origin—that is to say, derived from "equine influenza," or that it was carried by migratory birds; another suggestion was that the disease had a dietetic origin, being disseminated by means of Russian oats. These theories have, however, one by one been discarded and it is now generally acknowledged that the bacillus discovered by Dr. PFEIFFER in 1892 is the causal factor and, as we have already pointed out,[1] Dr. FINKLER maintains that the presence of this microbe in the sputum should form an essential part of the diagnosis in doubtful cases.

It is frequently difficult to distinguish between a "febrile catarrh" and an attack of influenza; both have many symptoms in common, although the mode of onset and the danger of complications differ considerably. Unless care is taken in the diagnosis needless alarm is often created. If therefore means for the detection of Pfeiffer's bacillus can be easily carried out a valuable help in this respect is at hand. There is an article on this subject in the monthly report (February) from the Department of Health, of the City of Chicago. After quoting from the *Medical Age* to the effect that influenza seems to have a strange attraction for some people, and every febrile catarrh of whatever kind is called "la grippe"—"gastric cases, headaches, sore-throat, coryzas, are all grippe"—the results are given

[1] THE LANCET, Jan. 14th, 1899, p. 103.

of some experiments carried out by Dr. F. E. WYNEKOOP First Assistant Bacteriologist of the department. These results only take the form of a "preliminary report," but Dr. WYNEKOOP has demonstrated that after the observer has become familiar with the appearance of the Pfeiffer bacillus under the microscope it may be readily identified in the sputum and mucus of a patient suffering from influenza by direct examination without awaiting the result of cultivation. We have before expressed our opinion on this proposal and trust that further investigation will be made in order to test the clinical value of such bacteriological examinations.

Dr. OSLER, following the opinions of many competent observers, states that the respiratory system is peculiarly likely to be involved, whilst others, although agreeing with this statement, believe that the main force of the disease is expended on the nervous system and much has been written on the "neuro-pathology" of influenza. Dr. GOODHART[2] draws attention to the fact that there is no record in former times of the long series of nerve disorders following influenza with which we are now but too familiar and which will be found by our successors when in the stress of epidemics yet to come they study, as we do to-day, the recorded experience of the past. It is undoubtedly true that influenza has shattered the nervous systems of a large number of its victims, in some cases permanently, in many for several years after it has run its course. These subsequent events may lead to the diagnosis of influenza after the event, the primary attack being so vague that no conclusion could be arrived at until the train of nervous symptoms suggested the true nature of the original disease.

Whilst we may claim to have made considerable advances during the past 10 years in the knowledge of the etiology and pathology of influenza we can show but little improvement in our methods of treatment and prophylaxis. This can cause no surprise, as the disease is probably transmitted in a similar manner to pulmonary tuberculosis through the mucus and secretions derived from the respiratory tract, which Dr. PFEIFFER has shown is the home of the active germ. That being so, prophylactic measures are accompanied by the same difficulties as is the case with regard to "consumption." Most risk is therefore run in ill-ventilated buildings, and although the healthy may be attacked, yet any mode of life which tends to lower the vital powers at the same time renders the individual more prone to infection. Statistics testify to the frequency of the disease and to its heavy mortality, particularly in the alcoholic and also in the over-worked and aged.

As respects treatment no specific has yet been discovered and much the same measures are now adopted as in the epidemic of 1890 and even in earlier outbreaks. In THE LANCET of Jan. 11th, 1890, commenting on the means which might be adopted we said: "The lines originally laid down by Dr. PEACOCK do not appear to have been very materially modified by anything that has since been written, and they resolved themselves mainly into directions for symptomatic treatment. He recommended for the simple form the use of diaphoretics, anodynes, stimulants, and tonics, and although the list of remedies falling into these groups has of late years been largely increased the main principles remain the same." These words hold good of our treatment during the present epidemic; the experience of over nine years, since the above was written, has simply corroborated Dr. PEACOCK'S statements. Complications must of course be treated as they arise, but the most difficult to control are probably the form of pneumonia occurring in connexion with influenza, which is usually of a particularly virulent character, and the nervous symptoms, which are also singularly rebellious to all therapeutic measures.

[2] Professor Clifford Allbutt's System of Medicine, vol. i., p. 697.

THE answer given by Mr. CHAPLIN in the House of Commons, in response to a question by Mr. CHANNING on Feb. 9th as to what action the Government intended to take on the recommendations of the Royal Commission on Tuberculosis so as to prevent the sale of milk from tuberculous cows prepared us for the issue of regulations by the Local Government Board under the Dairies, Cowsheds, and Milkshops Order of 1885. This issue has been accompanied by a circular of advice and instructions bearing upon the question of the seizure and control of meat of tuberculous animals placed on sale as human food; and a separate order has also been issued declaring that any disease of the udder certified by a veterinary surgeon to be tuberculous in character shall be deemed to be a "disease" for the purposes of the Dairies and Cowsheds Order. The issue of these several documents is of distinct importance. In the first place, it makes the fact quite clear that the Government have no present intention of resorting to fresh legislation on the subject of tuberculosis, notwithstanding that the recommendations which were made by the second Royal Commission on Tuberculosis and which were held to be essential to the proper control of that disease in so far as its communication to man is concerned were stated to be dependent on new legislation. From several statements which have been made it would almost seem that this disinclination to take new statutory powers has some connexion with an alleged uncertainty as to the effect of tuberculin when used for diagnostic purposes in the bovine animal, but as the use of this preparation has only a remote concern with any measures necessary for the purposes of human health we must express our great regret that a number of measures which would tend to control tuberculosis in man have been neglected owing to a consideration which is altogether of a secondary character. And even as regards the regulations and the Order issued we could have wished for action which showed greater concern for the protection of public health than we find in these documents, but at the same time we are glad to note that they indicate a distinct step in advance, and we trust that before long the intelligence of the country will demand more advanced measures in the direction of precaution and of the prevention of disease than are possible in the present state of the law.

Taking the new Definition Order first, it must be admitted that the inclusion of tuberculosis in any form as one of the diseases referred to in the Dairies and Cowsheds Order of 1885 is a valuable step. At present the new definition is strictly limited in character, for it is only such tuberculous disease

as affects the udder which becomes one of the diseases under the Order, and even this must be certified to by a veterinary surgeon. To have gone further would, in all probability, have involved considerable difficulty. It was estimated in the Harben Lectures for 1898 that at the very least 25 per cent. of our milch cows are tuberculous, and it has been shown that the fact of a cow being tuberculous does not necessarily mean that her milk is infective. Indeed, tuberculosis of the udder must apparently exist in order that actual danger should arise from the use of the milk. But, unfortunately, the early indications of tuberculosis of the udder are almost impossible of detection; and even the tuberculin test fails in any way to locate the disease. We must, therefore, for the moment be content to know that when there is a suspicion of tuberculous disease the animal will be examined by a veterinary surgeon and if he is doubtful as to the diagnosis of the precise condition of the udder the cow is sure to be watched, and other means of diagnosis, such as the examination of the milk, are pretty certain to follow. Besides which the new definition of "disease" will certainly tend to the early elimination of all cows suffering from disease of the udder which is obviously tuberculous. Even this has hitherto been impossible because tuberculosis was not a disease that could be dealt with under the Dairies Order.

Coming next to the new regulations made under the Order we are glad to find that with a definite power of entry into cowsheds by medical officers of health and sanitary inspectors there is a provision as to the same for "other officers," this being intended to cover the visit of a veterinary surgeon who will examine such cows as are, in the opinion of the medical officer of health, suspected of having tuberculous disease of the udder or any other disease rendering their milk unsafe. All this does not arise under the Order itself; but the Order taken together with the new definition of the term "disease" and with the powers already conferred as to diseases other than tuberculosis under the Infectious Disease Prevention Act, 1890, cannot fail to improve the position of sanitary authorities and their officers in the control of disease which is conveyed through the medium of milk-supplies.

Another point which is worthy of notice in the new regulations is the division of cowsheds, in so far as the provision of cubic space per cow is concerned, into those in which cows are habitually stalled by day and by night and those which are only used for cows which are habitually grazed in fields. This recognition of the value of life in the open air for the cow in connexion with the prevention of tuberculosis is of considerable importance and it may come to have a distinct educational value as regards the agricultural classes. We could have wished that with regard to both classes of cowsheds a minimum cubic capacity had been defined; but the term "cowshed" seems legally to cover structures differing in so many ways as regards the use to which they are put that this appears to have been found impracticable. It must, indeed, be clear that there is an immense difference as regards the production of tuberculosis between cowsheds standing in a farmyard in the centre of open fields, into which cows are only driven for milking or for cover against inclement nights, and cowsheds situated in towns which are far away from fields and which are occupied both by day and by night by milch cows from one end of the year to another. It is, above all, these latter that need to be controlled in the matter of cubic space; and even if some "cowsheds" of the other class are too confined and too crowded when occupied at night, the cows will at least have the advantage of grazing habitually by day in the open fields. Besides which it must be remembered that authorities are not bound to limit the control of cowsheds to the matters named in these regulations; indeed, if they feel that in their respective districts further control is needed they have full and unhindered power to make additional restrictions.

For cowsheds "other than those the cows from which are habitually grazed on grass land during the greater part of the year and when not so grazed are turned out during a portion of each day," the space laid down in the regulations is "not less than 800 cubic feet of air-space for each cow"; and with a view of ensuring a reasonable amount of floor-space—which is of all things important—it is laid down that in reckoning the cubic capacity no account will be taken of any space over 16 feet above the floor. We trust that these very reasonable but definite requirements may be taken to mean that as regards this class of cowshed the Local Government Board will hold that any regulations specifying a less amount of air-space will be of so "restrictive" a character as to justify the withholding of their sanction to them. These several regulations come into operation immediately on their adoption as regards new cowsheds, and they must be applied to existing ones within two years of their coming into effect.

The other regulations deal with the questions of lighting, ventilation, drainage, cleansing, and cleanliness of milk vessels; there are also rules prescribing the precautions against infection or contamination to be taken by purveyors of milk and persons selling milk by retail. These call for no detailed comment; but the regulations, taken as a whole and in conjunction with the new Order which includes tuberculous disease of the udder amongst the diseases which can be dealt with for the purposes of dairies, cowsheds, and milkshops, mark a distinct step in advance. They have the additional advantage of providing one model code issued on official authority in the place of a number of unofficial codes which vary even in matters of primary importance.

Annotations.

"Ne quid nimis."

ISOLATION, VOLUNTARY AND COMPULSORY.

THE verdict which was given last week against the Saltburn Urban District Council at the York Assizes in the case of Raine and wife *versus* that authority has considerable importance for medical officers of health and sanitary authorities. A sister of the plaintiff who had come on a visit to her brother, a butcher and milk-seller in Saltburn, during the period of the Middlesbrough epidemic, fell ill there of small-pox, and on the case being notified to Dr. Stainthorpe, the medical officer of health, she was removed to the sanatorium at Marske-on-Sea, and Mr. Raine and his family were also placed under temporary isolation there,

their house being meanwhile disinfected. From this point forward the evidence was contradictory. The plaintiffs declare that they were ordered to stop the sale of meat and drink and that the medical officer declared he had power to compel the removal of them and their family who were in health to the sanatorium. Mr. Raine himself ultimately had symptoms of small-pox. On the other hand, Dr. Stainthorpe positively declared that he had not coerced the plaintiffs in the slightest degree, that he had merely advised them to go to the sanatorium for 48 hours pending the disinfection of their premises, that they went voluntarily and stayed on there of their own free will. It was further urged on behalf of the defending sanitary authority that they had given the plaintiffs nearly £68 for articles destroyed and had supplied them with other articles to the amount of some £13, and that the plaintiffs had really incurred no loss because after the occurrence at their house they could not satisfactorily have carried on their business. Mr. Justice Ridley in summing up referred to the wise advice given by Dr. Stainthorpe, and it was recognised by those representing Saltburn that he had saved the locality from any spread of the disease; but on the purely legal question as to whether the plaintiffs had voluntarily coöperated in their isolation or were the victims of some sort of compulsion the jury decided in favour of the plaintiffs and gave a verdict with £25 damages. To medical officers of health in general the importance of this case comes by way of warning. It must be remembered that there is no power under any general Act to require a person to cease from carrying on his business merely because a case of infectious disease has occurred in his house, and when action is taken in this direction on the advice of a health officer it would be wise that the advice should be given in the presence of some witness. So also there is no statutory provision for enforcing the system of isolating healthy persons because a case of infectious disease has arisen in their home. All such action is dependent on the voluntary coöperation of the persons whom it is desired to isolate and unless they assent to submit to the process the authorities carrying out the system will be liable to actions for damages. It is this fact that makes the substitution of a system of isolation and disinfection for that of vaccination so little to be relied on in the case of small-pox. It only requires a few persons with a conscientious or other objection to comply with the wishes of the local sanitary authority or their officers in order to lead to a breakdown in the system. Some have contended that there existed a right to require the removal of people from a house where small-pox has appeared and to forbid such persons from following their ordinary occupations until after a period of isolation and submission to certain processes of infection on the ground that they had had an opportunity of contracting the infection. But this view has not received the support of the law courts; and there can be but little doubt that the prohibition as to the sale of articles under Section 126 of the Public Health Act, 1875, has reference only to articles such as "bedding, clothing, and rags," which are likely to have been in somewhat immediate contact with the sick person. The actual powers under the English law as to infectious disease are practically limited to the isolation of such sick persons as are improperly lodged, to the disinfection of infected premises, and to either the disinfection or destruction of infected articles. Action beyond this must be a matter to which the sick and their friends voluntarily assent.

THE PRINCE OF WALES'S HOSPITAL FUND.

THE second annual meeting of those interested in the Prince of Wales's Hospital Fund for London was held on Feb. 23rd, His Royal Highness being in the chair. Mr. Hugh Colin Smith, the chairman of the executive committee, read the report for the year 1898 which showed that the total sum distributed was £32,500. Of this sum £23,200 were given as annual grants and the balance was allotted as donations. The sums given for 1898 have, amongst other phases of relief, enabled 57 closed beds to be re-opened. Altogether since the inception of the fund 242 previously closed beds have been re-opened. The receipts for 1898 show, as was only to be expected, a falling off from those of 1897, the year of the Diamond Jubilee. The total expenditure for the year was £34,960, so that the expenses were £2460. We have already[1] commented upon the tabular statement issued by the honorary secretaries with regard to the awards made to the various hospitals which, although, of course, they did not give general satisfaction, were distributed after a most painstaking method, and in our issue of March 4th we noted the formation of the League of Mercy. As this association has for its object personal service in the maintenance of hospitals we cordially hope that Lord Rothschild's wish that next year the balance-sheet may show more satisfactory features may be fulfilled by the efforts of the new league.

THE SALE OF PRACTICES AND PROFESSIONAL SECRECY.

THE sale of medical practices, although not unknown on the continent, is by no means so well recognised a proceeding there as it has become amongst ourselves. A somewhat curious case has recently come before the French law courts in which the plaintiff, a medical man's widow, made an arrangement with the defendant to introduce him to her late husband's patients on the understanding that he should "in honour" pay her a certain definite share of the fees received. There seems to have been some dispute as to the amount of these, for the lady demanded to see the books, which the defendant refused to show her on the ground that to do so would violate his obligations as to professional secrecy. The court seems to have taken the view that while a practice is too personal and intangible a kind of property to be bought and sold the books of addresses and appointments with patients were what the defendant actually purchased and that no considerations of "honour" precluded the plaintiff's right to see that she received the stipulated share of the fees. Moreover, as what she required to see was not a case-book but only a cash-book and visiting-list, in which there would be no account of patients' maladies, there could not well be any objection on the score of the obligation of professional secrecy, so the defendant would have to submit to having his "honourable" conduct inquired into.

VACCINATION PROSECUTIONS AND VACCINATION OFFICERS.

ALTHOUGH the anti-vaccinationists have under the Vaccination Act of 1898 no legitimate basis for obstructing the machinery of vaccination provided by the Legislature for the gratuitous protection of the public against small-pox, it is perfectly obvious that the paid agitator must do something to justify his existence in the eyes of his clients. His energy may therefore not improbably be expended in the direction of depriving the poor of the opportunities afforded them for acquiring protection, and of placing all the obstacles in his power against the carrying out of the Vaccination Acts. The anti-vaccinationists will no doubt continue to provide expert legal assistance for those in default under the Acts, and unless the vaccination officer is furnished with similar advantages the ends of justice may be defeated. Fortunately the Act of 1898 renders it possible for the vaccination officer to procure the necessary legal assistance and we may therefore rest assured

[1] THE LANCET, Jan. 7th, 1899.

that in the future the objections raised by the anti-vaccinationists' counsel will not be allowed to hoodwink the magistrates. Law is in no sense an accurate science and it is altogether impossible to predict what any given exponent or administrator of it may at any given time elect to interpret into any given section of the Vaccination Acts. Although under existing arrangements evasions of justice should be far less frequent than heretofore, it is very essential that the vaccination officer shall see that each of the steps taken in relation to any given child shall be in exact accord with the Acts and the Vaccination Order. Each vaccination officer throughout the country should take care that he is provided under Article 12 of the Vaccination Order, 1898, with a copy of the resolution appointing him to office. With this in his possession he will be in a position to take such proceedings as he deems desirable. He should, however, be sure of his ground in every case and he should not hesitate to seek legal assistance whenever he considers it wise thus to fortify himself. An average vaccination officer is not quite a match for a clever barrister, unless, that is to say, he has had extensive experience in conducting vaccination prosecutions; and it may be well, in the first few cases at least, for the vaccination officer to avail himself of his powers to procure expert assistance. It is, too, incumbent upon clerks to boards of guardians to make themselves thoroughly familiar with the terms of the new Vaccination Order and to follow all the decisions which may be given with regard to it. And, lastly, the public vaccinator must do his share towards the successful issue of any proceedings by conducting each step of his action with regard to children whose names are forwarded to him by the vaccination officer in exact accordance with the terms of his instructions. Unless he does this and, moreover, keeps an accurate record of his dates, &c., he is not following out the terms of his contract or assisting the cause of vaccination as he should do.

THE INFECTIOUSNESS OF PHTHISIS.

AT the Folkestone County Court on Tuesday last a case of direct interest to the medical profession as well as to hotel-keepers and their patrons the public was heard before Sir William L. Selfe. It was a claim by the Leas Hotel Company against the executors of Mr. Radclyffe Radclyffe-Hall, a gentleman who died in the hotel in October last. It appeared that the deceased went to Folkestone from Cannes and stayed at the Leas Hotel for a few days on his return to this country. He was in very weak health and the late Dr. C. E. Fitz-Gerald saw him on the day before that on which he died and subsequently gave a certificate that death was due to tuberculosis. He informed the manager of the hotel that the disease was infectious, although it was not included in the list of notifiable diseases, and advised that the furniture should be removed, the bedding destroyed, and the room disinfected. The estimated cost of this altogether was £19 13*s.* 6*d.* and a claim for this amount was made against the executors who disputed liability. It was stated that the articles of furniture had not been destroyed, the wall-paper had not been removed, and the woodwork had not been repainted. But the room had been disinfected and shut up for a month and afterwards left to air for a fortnight. The plaintiffs therefore amended the claim and asked to be awarded the sum for the rent of the room during the time when it was not occupied. Mr. Yunge-Bateman, the medical officer of health of the borough, gave evidence that tuberculosis was now regarded by the medical profession as infectious and said that they were trying to get it recognised as such. In his opinion all that Dr. Fitz-Gerald had recommended was essential in the interest of the public, as it would be unsafe for any other person to occupy the room until it had been thoroughly purified. A long legal argument ensued as to a customer at an hotel being liable to pay anything under such circumstances, and it was also contended on behalf of the defendants that the cause of death had been wrongly given by Dr. Fitz-Gerald, inasmuch as the deceased had been suffering for years from a bladder complaint and had undergone a serious operation two years ago for that complaint and his illness was simply general debility consequent upon that operation. He had been attended by several eminent physicians and it had never been said that he had chest disease, although one had advised him to be careful of his chest. The solicitor for the plaintiffs and the barrister for the defendants were unable to cite any case as a precedent and His Honour said that the case was quite new in his experience. He held, however, that hotel-keepers were entitled to compensation under such circumstances and that he could not go behind the certificate of the cause of death given by the medical man who attended the deceased in his last illness. It was not shown that the Leas Hotel Company had really lost anything by being unable to let the room as it was closed during the dull season, and it was admitted that there were several other unoccupied rooms in the hotel. The only sum which they were legally entitled to recover, in his judgment, was the 15*s.* paid for disinfecting the room and he gave judgment for that amount. Counsel for the defendants then asked for leave to appeal, contending that it raised a point of very great importance to hotel patrons, but His Honour declined to grant leave as the amount was so small. If the application was pressed he should give costs against the defendants on the higher scale. The judgment was therefore acquiesced in.

"CRAW-CRAW" AND ITS TREATMENT.

A RECENT number of the *Archives de Médecine Navale* contains a short paper by Dr. J. Emily, a French nava surgeon, on the nature and treatment of a complaint which is known in Eastern Africa as the craw-craw. This account, we are informed in an editorial note, was despatched from Fashoda on Dec. 8th, 1898, by its author who is a member of the Marchand expedition. Craw-craw, says Dr. Emily, is an affection of the skin which is well known to all medical men who have visited the French Congo or the Upper Ubangi district. Its appearance and the highly characteristic course which it pursues constitute it a distinct morbid entity. Commencing as a small reddish-brown macula, situated usually on the lower extremities but also on the dorsal aspect of the hands and elsewhere, the disease from the first is attended by an intolerable itchiness which forces the sufferer to scratch himself violently. A craw-craw ulcer when fully established is encircled by a zone of inflamed skin of the colour of wine lees and may attain to the dimensions of a five-franc piece. It consists in an excavation with nearly perpendicular sides and a granulating bottom whence thickish pus exudes. When exposed to the air this secretion hardens, covering the surface of the sore with a dense impermeable pellicle beneath which the pathogenic agents, whether specific or otherwise, doubtless pullulate freely. Craw-craw has been ascribed to the gonococcus, but Dr. Emily is by no means sure that this view is correct and he hopes on a future occasion to be able to settle with certainty the identity of the microbe. Be this as it may, there can be no doubt regarding the highly contagious character of the affection. In the opinion of several observers mosquitoes and chigoes are to be held responsible for implanting the germs of craw-craw in the human subject, but this view does not commend itself to Dr. Emily. The chigoe abounds on the Gaboon littoral and infests the route between Loango and Brazzaville. The inhabitants, natives as well as Europeans, are infested by mosquitoes, while their feet and sometimes their hands are ruined by

the chigoe, but Dr. Emily never met with a case of craw-craw among the blacks of the Lower Congo. The wounds made by the insect pests and enlarged by scratching may serve as ports of entry to the specific germs, but apparently the latter do not reside in the irritant liquid which is injected beneath the epidermis. Craw-craw ulcers are invariably multiple and may occur all over the body. Dr. Spire of Ubangi has met with them on the penis where they simulated chancres, the resemblance being accentuated by inguinal adenopathy. The treatment of craw-craw has hitherto been most unsatisfactory, apparent cure after lengthened medication being almost always followed by relapse. So inveterate, indeed, did Dr. Emily find the complaint that in spite of all his efforts several members of the mission who had acquired craw-craw in Western Africa were still suffering therefrom on arrival in the Nile basin. At length it occurred to him to make a trial of boric acid and as far as he has gone the results have been well-nigh magical. But the drug must be given a fair chance of coping with the germs at close quarters in the following manner. All hair in the vicinity of the ulcer having been removed the next procedure consists in an energetic washing with soap, brush, and a corrosive sublimate solution. This portion of the toilet over, the craw-craw itself is next cleansed by means of a similar solution and tepid boiled water. The base of the ulcer thus exposed will be found to be granular, tortuous, and purulent. Dr. Emily then proceeds to swab out the cavity with well-squeezed plugs of lint, nor is he content until the pus is replaced by sanguineous oozing. As may be supposed this stage of the process is a painful one, but it does not last very long and is absolutely essential. Pure pulverised boric acid applied freely, boricated vaseline, and antiseptic bandaging complete the operation. The pain quickly disappears, being followed by a sensation of great comfort and when after five or six days the appliances are removed the craw-craw will be found to be completely cicatrised. Dr. Emily gives the details of four cases which were treated in this way with the utmost success.

"CUBITAL ANALGESIA" IN THE INSANE: A VALUABLE DIAGNOSTIC SIGN.

FIVE years ago an Italian observer (Biernacki, in *Neurologisches Centralblatt*, 1894) noted that the peculiar painful feeling with tingling felt along the course of the ulnar nerve and the slight muscular contraction in the little finger and hypothenar eminence, following upon pressing and nipping the ulnar nerve-trunk at the back of the elbow, were absent in a considerable number of patients suffering from locomotor ataxy. In the following year Cramer noted that this "cubital analgesia" was very common among general paralytics in lunatic asylums, reaching as high as 75 per cent. The attention of alienists being thus directed to the subject, various observations were made on the frequency of this sign in lunatics other than general paralytics to establish its value, if any, in differential diagnosis. Mändel stated[1] that from his observations at the Berlin Polyclinic on tabes, general paralysis, and other neuroses he considered that this sign was of great importance. In the present year Dr. P. Keraval,[2] superintendent of the asylum at Armentières in France, has published the results of a systematic examination of 626 asylum patients—viz., 84 general paralytics and 542 other lunatics (melancholiacs, dements, imbeciles and degenerates, idiots, maniacs, alcoholics, &c.)—carried out by himself and his assistant, Dr. Laurent, with the following results:—Of 18 general paralytics at an early stage 10 showed "cubital analgesia," two were doubtful, and six were normal; of 30 at a medium stage 12 showed "cubital analgesia," two were doubtful, and 16 were normal; and of 36 at an advanced stage 22 showed "cubital analgesia," four were doubtful, and 10 were normal. Thus of 84 general paralytics at various stages 44 showed "cubital analgesia," eight were doubtful, and 32 were normal. Of the other lunatics who exhibited the symptom the ratios were: dements, 87 per cent.; idiots, 85 per cent.; degenerates, 40 per cent.; melancholiacs, 32 per cent.; chronic delusional cases, 30 per cent.; maniacs, 19 per cent.; alcoholics, 10 per cent.; while epileptics showed normal feeling in all the cases—20 in number were examined. It will thus be seen among lunatics that excluding the cases of idiots and dements—i.e., all cases of profound arrest of growth or degeneration of the brain—the greatest percentage of patients who exhibit this sign is composed of general paralytics, of whom 52½ per cent. have cubital or ulnar analgesia. This symptom must therefore, the writers think, take rank next only to the already known physical signs—viz., inequality of the pupils with loss of reaction to light and tremors of the tongue and lips, with indistinctness or hesitancy of articulation — which characterise general paralysis of the insane even in its early stages.

[1] Psychiatric Congress at Berlin, 1895.
[2] Archives de Neurologie, vol. vii. No. 38 February, 1899.

MYELOPATHIC ALBUMOSURIA.

AT the meeting of the Royal Medical and Chirurgical Society on March 14th Dr. Bradshaw and Dr. Warrington of Liverpool made a most interesting communication on a rare case which clinically was at first characterised by the persistent occurrence of albumose in the urine which was present till death. Shortly before death indications of softening of the ribs and the sternum appeared and at the necropsy it was found that the softening of bones was due to multiple myelomata. The association of albumosuria and multiple tumours of bone has been recorded previously, the first case being by the late Dr. Bence Jones in 1847, but in all of these the bone lesions were only discovered after death. Dr. Bradshaw and Dr. Warrington's case appears to be the first in which the diagnosis was made during life. The name of "myelopathic albumosuria" which they propose to give to the condition is an appropriate and convenient one and will distinguish it from other forms of albumosuria which are often associated with granular contracted kidney and with diseases attended by much formation of pus such as empyema.

THE CONSERVANCY OF THE RIVER LEE.

THE condition of the River Lee, as our readers are aware, has for a long time past been in a most unsatisfactory state. In the articles which we published on the metropolitan water-supply we called attention to the condition of the intercepting drain which belongs to the East London Waterworks Company and was made for the purpose of lessening the impurity of the river at the intakes of the company. We pointed out that the effluents which passed into the drain from the sewage farms of two of the local authorities were in a disgraceful state. The Conservators have certainly not exercised proper vigilance in this matter. The barge owners who use the Lee Navigation have also just cause for complaint as to the condition into which the waterway has been allowed to pass. When a public body neglects its duties it is sometimes best radically to change its constitution. This idea was strongly held by the London County Council who in a Bill which they introduced into Parliament this year proposed to entirely alter the constitution of the present Lee Conservancy Board. The proposition of the London County Council was that the board should consist of 14 members, of whom seven should be appointed by themselves, and that the counties of Bedfordshire, Hertfordshire, and Essex, the corporations of West Ham and of London, the council of the administrative county of Middlesex, and the

water companies should elect one representative each. The proposition that the London County Council should have the appointment of seven members and that the county of Hertfordshire should have only one member seems on the face of it absurd, and possibly the London County Council made this quaint proposition simply with a view of showing that "something should be done." This effect at any rate has been produced. The London County Council Bill came up for second reading in the House of Commons on Thursday, March 9th, when Mr. Cecil, member for the Hertford division of Hertfordshire, announced that the Lee Conservancy Board had passed a resolution to the effect that "if the clauses relating to the Lee Conservancy be withdrawn from the present Bill the Lee Conservancy Board will themselves promote a Bill in the next or following session of Parliament for the reconstitution of the Board in such manner as to make it representative of all the interests of the river Lee." Mr. Cecil announced that the Hertfordshire and Bedfordshire members of Parliament had come to the decision that it would be well for the Lee Conservancy Board to promote a Bill on the lines indicated and that they would be ready to do so if the London County Council dropped that part of their Bill referring to the Conservancy of the Lee. Mr. James Stuart, member for Shoreditch, who was responsible for the Bill, withdrew the clause which had reference to the Lee on the understanding that a Bill will shortly be promoted by the Lee Conservancy Board. The purity of the Lee water and the navigation of the river are of very great importance and we are of opinion that they should be dealt with by the Government. The enormous amount of good which has been effected by the Thames Conservators during the last few years has shown what can be done in the way of river purification. We are of opinion that the best solution for the present difficulties concerning the Lee would be to place it under the care of the existing Thames Conservancy Board. The present Conservators and their officers have now had considerable experience as to the methods by which improvements can be brought about in the Thames and its chief tributaries, and it would be a great advantage that the duty of conserving the Lee should be placed in strong and experienced hands. We do not think that any exception could reasonably be taken to placing the Lee under the Thames Conservators if a small number of members representing the interests of the counties concerned were added to the Thames Conservancy Board. It would be a great mistake to increase the numbers of the Board so as to make it an unwieldy body, but we think that all interests would be properly represented by a very small addition to the existing Board.

ANNIVERSARY DINNER OF THE MEDICAL SOCIETY OF LONDON.

THE 126th anniversary of the founding of the Medical Society of London was celebrated on March 8th by the Fellows and their guests dining at the Hotel Métropole, the President, Mr. Edmund Owen, being in the chair. There was a record attendance, 168 sitting down to dinner, and the well-known hospitality of the society on these occasions had been exercised to an unusual extent. Among the guests were Sir Samuel Wilks, Sir William Mac Cormac, Sir Henry F. Norbury, and the Presidents of practically all the medical societies meeting in London. After the usual loyal toasts had been duly honoured, Mr. Owen proposed the toast of "The Medical Society of London" in an eloquent and humorous speech and in welcoming the guests informed them that social relaxation in the past had played an important part in the history of the society. He gave a graphic account[1] of a quarrel and schism in the society in 1774, the year after its foundation, which led to the resignation of the President and the secretaries, and of the way in which Lettsom smoothed over the difficulties and led to the return to the society of the revolted members. Lettsom cemented this reunion by regaling the Fellows in 1775 on a turtle which had been presented to him. The ancients believed that the earth rested on the back of a tortoise and Mr. Owen believed that the prosperity of the society was "based on the carapace of that turtle." Following the toast of the evening came the presentation of the Fothergillian Gold Medal to Dr. S. Monckton Copeman for his researches on glycerinated calf lymph which had led to such excellent results. Dr. Copeman was very loudly cheered. Dr. West proposed the toast of the visitors to which Sir Samuel Wilks, Bart., and Sir William Mac Cormac, Bart., K.C.V.O., responded. The health of the President was proposed by Dr. Ord who referred not only to Mr. Owen's fulfilment of his office as President, but to his personal qualities which would have ensured him distinction whatever profession he had adopted. The toast was received with musical honours and Mr. Owen replied. An excellent musical programme was arranged by Dr. Robert Maguire which added greatly to the enjoyment of the evening and included pianoforte solos by Mr. Plimmer, a violoncello solo by Mr. Ronald Carter, and two songs by Mr. Foster Ferguson which were loudly encored.

[1] Vide THE LANCET, March 11th, p. 719.

SUGAR "AS A MILITARY ALIMENT."

DR. JOSEPH DE PIETRA SANTA has recently published an interesting paper in the *Journal d'Hygiène*,[1] of which he is editor, on the merits of sugar "as a military aliment." It was long believed, he says, that sugar caused constipation and was moreover "heating," an ill-defined term greatly in vogue a generation or two since. In the opinion of many distinguished members of the medical profession sugar became unwholesome when it was consumed in anything but small quantities, causing ulcers in the mouth with softening of the gums and also predisposing to scurvy. Requiring a large amount of gastric juice for its proper solution it consequently soon fatigued the stomach, while at the same time it favoured worms and weakened the chest. By degrees, however, more enlightened views began to prevail. Physicians in various countries became converted and in France the celebrated hygienist, Michel Lévy, constituted himself the champion of the maligned product, preaching the doctrine that Nature herself taught us to make use of sugar inasmuch as she combined with it many tasteless or acid substances which otherwise would remain unpalatable. Cruveilhier likewise supported sugar from the coign of vantage of his professorial chair, declaring that its evil reputation was a libel, while Proudhon was responsible for the aphorism that "sugar constitutes the poor man's pharmacy, being injurious solely to the pocket." By this time the alimentary status of sugar is no longer doubtful. The pariah of yesterday has grown into the spoilt darling of the dietitians of to-day, the change being in a great measure due to the ever-increasing army of cyclists whose sagacity was not long at fault in recognising the value of sugar not merely as a trustworthy respiratory food but also as a potent and speedy recuperator in muscular weariness. In December, 1897, the question of the usefulness of sugar as a food for soldiers was raised in the German Parliament by Dr. Paasche who based his argument on some experiments which had been undertaken by Staff Surgeon-Major Schumburg and in consequence of the discussion that ensued a further investigation under Dr. Leitenstorfer took place at Metz during the annual manœuvres. 20 men

[1] No. 1169, Feb. 16th, 1899.

having been selected from each company of a regiment, all of them resembling each other as much as possible in physique, general health, &c., an extra ration of 100 grammes of sugar was issued to half of the whole number. The results are said to have been conclusively in favour of the sugar eaters. They increased in weight while their comrades did not, they enjoyed much better health, and they were also able to support the hard work with much less distress. The use of a lump or two of sugar is described as acting like a charm not only against fatigue but also in quenching thirst; and none of the men who consumed the extra ration felt in the least surfeited by it. The French soldier, it seems, only gets two and a half grammes of sugar daily, whereas his English congener's allowance is 37 grammes. "How far we are behind this practical people!" exclaims Dr. de Pietra Santa.

THE CHAIR OF PHYSIOLOGY IN EDINBURGH UNIVERSITY.

As announced in our advertising columns last week, the preliminary steps are being taken with a view to filling the chair of physiology left vacant by the lamented death of Professor Rutherford. On account of the important interests involved it is essential that both the patrons who decide the appointment and also the intending candidates should have ample time in which to complete their arrangements. Applications are now invited and are to be sent not later than Saturday, May 20th next, to the secretary to the curators of patronage, Mr. R. Herbert Johnston, W.S., 66, Frederick-street, Edinburgh. Each candidate must send eight copies of his application, one of which should be signed, and must also send eight copies of any testimonials which he may desire to submit.

GENERAL PARALYSIS OF THE INSANE IN MOTHER AND CHILD.

THIS rare condition has been very rarely recorded, and a recent interesting case (with results of the post-mortem examination) published by Dr. Oscar Müller in the *Allgemeine Zeitschrift für Psychiatrie*, June, 1898) calls for special notice. The mother, a woman aged 45 years, had had syphilis and had given birth to two children, one of whom died from infantile convulsions. This child showed evidences of congenital infantile syphilis. The other child grew up apparently in good bodily health and as regards her mind she was an average and even promising child. At the age of 10 years, however, she began to exhibit loss of intelligence, could not keep pace with her schoolmates, and soon became quite dull and stupid. From being a clever skater she soon became an incapable one, while her handwriting also rapidly failed and grew confused and illegible. Her increasing mental dulness passed into a profound apathetic dementia; she was reduced to an idiotic and helpless condition, in which state she died. The mother shortly before this began to show signs of mental and moral deterioration and probably the onset of the climacteric period tended to hasten the *dénouement*. She developed extreme conjugal jealousy and then she became careless and neglectful of her own appearance and took to drink. At this time a slight defect of articulation developed; this became marked and finally there was actual paresis of the muscles of articulation, with tremors of the tongue and lips. Her mind now rapidly and steadily lapsed into dementia and she died shortly afterwards. A necropsy showed her brain to be affected with the typical vascular and meningeal lesions of general paralysis. The child was also examined post mortem and the brain lesions were found to conform to those of the mother. The interest of the case lies not only in its rarity, but also in the fact that the necropsies disclosed the lesion which was diagnosed during life. Further interest attaches to the fact that the case of the daughter was one of that rare type of disease known as "juvenile general paralysis." It may be mentioned that cases of such similar heredity are quite rare, and when they do occur there has generally been associated with them a history either of personal or congenital syphilis. The latter is a factor of such predominating frequency that it leaves no doubt as to the fact that the chief cause of juvenile general paralysis is congenital syphilis. The larger question, however, as regards the agency of acquired syphilis in determining the appearance of general paralysis in adults is unfortunately not settled by the evidence of cases such as the above, though the weight of evidence inclines to view syphilis as an accessory and contributory factor with others, such as general excess and intemperance.

BLACKWATER FEVER.

THE paper which is to be read before the Epidemiological Society of London to-night (Friday) on this interesting but imperfectly understood condition is probably looked forward to with much interest by epidemiologists. Mr. W. H. Crosse, the reader of the paper, was for some years Principal Medical Officer to the Royal Niger Company and in this capacity he had unusual opportunities for studying the manifestations of this condition and its relations to malarial fever, to paroxysmal hæmoglobinuria, and to quinine poisoning. As to the distribution of this abnormal state we have yet much to learn, and it must be said that having regard to the large number of our countrymen who spend most of their existence in those of our colonies where malaria obtains it is of great importance that our knowledge on the subject should be extended.

THE MEDICAL FACTOR IN IMPERIAL EXPANSION.

THE "white man's burden" is a complex as well as a weighty one and its medical constituent is as important as any. This was admirably put by Professor McKendrick at the mass meeting held last week in Glasgow on the subject of medical missions. No other nationality has combined, as has the British, colonial development with civilisation—civilisation of which the inferior races sooner or later feel the benefit and from which they take "a new departure" in their evolution. True, in the sixteenth and seventeenth centuries Francis Xavier and his followers, mainly belonging to the Society of Jesus, did splendid work in East Africa and in South America, but that work was too closely identified with religious proselytism to be thoroughly healthy or lasting. Their successors in practice have admitted as much. The Capuchin monk Massaia (afterwards promoted to be cardinal) took a leaf out of English-speaking missionary effort when he made Bible instruction to come after, not precede, physical and moral rehabilitation. In the Galla country 50 years ago he taught the savage population the arts of peace (mainly agricultural industry) before translating for them and interpreting the Sermon on the Mount. But his most effective resource was of a medical nature and he owed his wonderful command of native sympathy and allegiance more to his having stamped out small-pox by vaccination than to any other of his benefactions. Among all the incidents brought to light by the Fashoda difficulty, none was more significant than the friendly reception accorded to Major Marchand by the natives from the mistaken notion that he was English, so universal is the native impression that of all the "white men" who invade Equatorial Africa, those of British nationality are the least to be dreaded or rather the most to be welcomed. Professor McKendrick and the able speakers who followed him put the superiority of

English-speaking expansion over that of its other European competitors in the strongest light—a superiority due to the civilising energies and aptitudes of the race, using as a main instrument the medical missionary. Scotland has an honourable record in this field of enterprise, from Mungo Park to David Livingstone and the noble band of volunteers to whom the regions round the Equatorial lakes are already so deeply indebted. The faculty which he represented in Glasgow University took, said Professor McKendrick, "the deepest interest in medical missionary work." Long may it continue to do so, thus making medicine the handmaid of physical and moral evolution and promoting spiritual reclamation with a success which religion, single-handed, has never known.

"ANTI-VIVISECTION."

AN institution that desires to be known as the National Anti-Vivisection Hospital is advertising for funds. A noble lord and a lady whose name is not given have promised sums of £50 and £10 respectively if a given number of persons will also oblige with donations of equal value. The programme which the promoters of this foundation lay down for it is brief and is as follows: "No vivisectors on its staff; no vivisection in its schools; no experiments on patients." There is here an obvious omission and one which no doubt the intending donors of £50 and £10 will desire to see supplied before drawing their cheques. A fourth rule should run to this effect: "No operation will be performed and no drug will be administered in this hospital the effect of which has been discovered or verified in any degree by means or with the aid of experiments on living animals," all such experiments being presumably included in the word "Vivisection" as used in the advertisement. The precise meaning of the expression "experiments on patients" needs further definition. Either the surgeons in this institution are to profit by operations successfully performed for the first time elsewhere by other surgeons, but are not to be trusted to take steps without precedents to follow, or a wider principle is suggested for universal guidance similar to that enjoined by the fond but Hibernian parent who forbids a child to enter the water until he has learnt to swim. In whatever way it may be regarded every deviation, however slight, from established practice is necessarily an experiment the first time it is made, aye and until the deviation has itself become recognised as necessary when occasion demands. But now we are beginning to pay the faddist the useless compliment of reasoning with him, whereas he will not even gracefully reply by submitting to us a schedule of the operations and drugs that he would permit under the limitations which we have suggested and which are the logical complement to those already propounded.

RIVER POLLUTION: THE MERSEY AND IRWELL DISTRICT.

AT a meeting of the Mersey and Irwell Joint Committee held on March 6th Sir Henry Roscoe presented a return of a series of analyses of sewage effluents and of the waters of the Ship Canal and of the rivers in the district. Of 36 samples of effluent taken 26 were either good or fair, the unsatisfactory effluents mainly coming from tanks. The tables concerning the effluents showed that the difficulty of dealing with the sewage was mostly felt in the large towns. Since the committee began its work, however, their knowledge had been much extended and he felt that even in large towns the difficulties which presented themselves could be overcome. There was no doubt of considerable progress having been made and this progress was especially noticeable in the condition of the rivers themselves. Many cases had come before them in which water could be used for manufacturing purposes which could not be so used before the committee began its work. It was satisfactory to know, too, that the committee had not interfered with trade. No single instance had occurred in which a manufacturer had to leave the district by reason of the action of the committee. The returns were of considerable interest. They had hitherto not been able to state definitely what the condition of the rivers was. He had the results of a very complete system of analyses of the waters of the ship canal and of the rivers in the watershed. 63 samples had been taken from the Ship Canal and analysed and they had obtained a fair idea of the condition of the water generally. It had been said that the composition of the water in the canal was worse than the effluent from the local authorities. This was proved by analyses not to be the case. 69 samples had been taken from the streams. It was found in all cases that the condition of the water deteriorated the further they went from the source. Although they could not tell exactly the improvement which had taken place in the condition of the streams during the last few years there was no doubt that some improvement had taken place. The samples related to the Irk, the Medlock, the Mersey, the Irwell, the Roach, and the Beal. The Irk was by far the worst of the streams; the Mersey and Irwell were not nearly so bad. The reason for this will no doubt be the subject of investigation.

CONVERSAZIONE AT THE MIDDLESEX HOSPITAL MEDICAL SCHOOL.

A CONVERSAZIONE was held on Wednesday, March 15th, on the occasion of the inauguration of the new school buildings. Guests were received in the board-room by the chairman of the council, the senior physician, the senior surgeon, and the dean. The new school buildings consist of two blocks—the Garden block and the Union-street block. The Garden block contains the large lecture theatre, the bacteriological research laboratory, the museum, the chemical department (with laboratory, lecture theatre, and lecturer's private laboratory) the pathological and bacteriological laboratories, the room for operative surgery, and the dissecting-room. In the Union-street block are two physiological laboratories and some class-rooms. All the laboratories have evidently been fitted up with very great care and are admirably adapted for the purposes for which they have been designed. They are well-equipped with all needful apparatus. Many objects of interest were on view in the various rooms, and among them may be mentioned the following. In the large lecture theatre Messrs. Muirhead and Co. exhibited Mr. Mackenzie Davidson's apparatus for localisation in skiagraphy, and especially neat was a portable form of the apparatus intended for use by army surgeons in the field. Mr. Mackenzie Davidson also showed stereoscopic skiagrams by means of Wheatstone's stereoscope. In the bacteriological research laboratory was an interesting series of specimens prepared by Mr. A. G. R. Foulerton illustrating the successive steps in the complete bacteriological diagnosis of pulmonary tuberculosis. In the museum Dr. Voelcker and Dr. Campbell Thomson showed many recent additions to the museum prepared by the Kaiserling method which so successfully retains the normal appearance of the tissues. Dr. Voelcker also kindly lent for exhibition a fine and valuable collection of archaic medical works. In the chemical theatre were to be seen the spectra of the latest additions to the list of elements—namely, neon, krypton, and xenon; these were exhibited by Professor W. Ramsay and Dr. Travers. In the anatomy lecturer's room was an exhibition by Messrs. Schall of electrical apparatus adapted to medical purposes. In the pathological and bacteriological laboratories were many microscopical preparations of morbid histology and some original paintings

and drawings by Sir Charles Bell; there were some very interesting microscopic sections of yeast tumours and some showing mycosis of the lung. Two species of filaria—namely, perstans and nocturna—were also shown. Messrs. Swift and Son showed many microscopes and microscopic preparations, and surgical and scientific instruments were exhibited in the dissecting-room by Messrs. Allen and Hanbury, Mr. C. Baker, Messrs. Curry and Paxton, Messrs. Krohne and Sesemann, and Messrs. Maw, Son, and Thompson. In the physiological laboratory Mr. Somerville Hastings gave a demonstration of the action of the auriculo-ventricular valves in the heart of the ox, and Dr. J. J. Pringle exhibited many striking water-colour drawings of rare skin diseases. In the entrance hall were to be seen the skeletons of the originals of Landseer's "Dignity and Impudence." The band of the Royal Artillery performed a charming selection of music in the museum during the evening.

THE PETROLEUM BILL.

THIS Bill, in which Mr. Harold J. Reckitt sought to raise the flash-point of oil for lighting purposes from 73° to 100° F., was rejected on a division on the second reading in the House of Commons last Wednesday by a majority of 85, the figures being 159 for and 244 against. We have throughout entertained doubt whether the Government would be led, in view of the recommendation in favour of raising the flash-point being sustained by so narrow a majority of the Petroleum Committee, to legislate in this direction. Interest will now turn on the proposals which the Government will make in their Bill which Mr. Jesse Collings has promised to introduce shortly. We are entirely with those who are studying the question solely from the point of view of public protection, and trust that whatever measure may be proposed it will be one calculated to protect life and limb.

WE are informed that Dr. Curnow, Dr. John Anderson, C.I.E., and Mr. G. R. Turner, have signed a joint letter resigning their posts as physicians and surgeon, respectively, to the Seamen's Hospital Society, but offering to continue the performance of their duties until their successors are appointed. Mr. Donald Gunn, the ophthalmic surgeon, has also resigned his post. We shall refer next week to the circumstances which have thus left the *Dreadnought* Seamen's Hospital, Greenwich, without any honorary medical staff.

A COURSE of lectures on Diseases of Tropical Climates will be delivered by Dr. Patrick Manson in the Medical School of St. George's Hospital on Tuesday, May 16th, and every succeeding Friday and Tuesday till July 18th, at 5 P.M. each day. For information with regard to the course application should be made to the Dean of Medical School.

SIR T. NAGHTEN FITZGERALD, F.R.C.S.Irel., who has been elected president of the Medical Society of Victoria for the ensuing year, is an Irishman who was born in Dublin 64 years ago. He is the senior surgeon to the Melbourne Hospital in Victoria and was knighted in 1897.

WE understand that the Society of Apothecaries of London intend to have the question, temporarily decided by the case of "Hunter *v.* Clare," as to the right of a Licentiate of the Society to style himself "physician," reopened at an early date.

THE annual meeting of the Asylum Workers' Association will take place on Monday, March 27th, at 3.30 P.M., under the presidency of Sir J. Crichton Browne, M.D. Edin., F.R.S., at 11, Chandos-street, W.

DR. THOMAS BARLOW has been appointed to fill the vacancy in the body of the University of London Commissioners caused by the resignation of Sir William Roberts, M.D. Lond.

WE regret sincerely to learn of the death of Major James W. Evans, I.M.S., Professor of Pathology in Calcutta Medical College, from plague.

THE LAW IN REGARD TO THE PROFESSIONAL SECRECY OF MEDICAL PRACTITIONERS.

THE following is the memorandum on this subject prepared by Mr. Muir Mackenzie at the request of the President of the General Medical Council with the concurrence of the Executive Committee for transmission through the Home Secretary to the Russian Ambassador who had asked for information for the use of his Government.

MEMORANDUM ON THE LAW OF THE OBLIGATION OF MEDICAL PRACTITIONERS WITH REGARD TO PROFESSIONAL SECRECY.

There are two aspects of the question of professional secrecy of medical practitioners—namely, first, whether a medical man can be made to divulge professional confidences in a court of law and, secondly, whether he may under any circumstances be permitted to divulge professional confidences in the intercourse of daily life.

(1) As regards the first question it is settled law that a medical man cannot claim the privilege, to which lawyers have been held to be entitled, of refusing to disclose matters communicated to them professionally. "A surgeon has no privilege where it is a material question in a civil or criminal cause to know whether parties were married or whether a child was born to say that his introduction to the parties was in the course of his profession and in that way he came to the knowledge of it. If a surgeon was voluntarily to reveal these secrets to be sure he would be guilty of a breach of honour and of great indiscretion; but to give that information in a court of justice, which by the law of the land he is bound to do, will never be imputed to him as any indiscretion whatever"—per Lord Mansfield in the Duchess of Kingston's case, 20 S.T. p. 573. The same position is recognised by Buller, J., in Wilson *v.* Rastall, 4 T.R. p. 760, where he says; "There are cases to which it is much to be lamented that the law of privilege is not extended; those in which medical persons are obliged to disclose the information which they acquire by attending in their professional characters"; and similarly in a later case Lord Chancellor Brougham, after referring to a lawyer's right of privilege, continues as follows: "The foundation of this rule is not difficult to discover; it is not (as has sometimes been said) on account of any particular importance which the law attributes to the business of legal professors or any particular disposition to afford them protection, though certainly it may not be very easy to discover why a like privilege has been refused to others, especially to medical advisers."—Greenhough *v.* Gaskell, 1 M. & K., p. 103.

In Rex. *v.* Gibbons, 1 C.P. 97, where the prisoner was indicted for the murder of her child and a surgeon was called to prove confessions made to him, Park, J., overruled the objection that the witness was at the time attending the prisoner in his capacity of surgeon, adding: "That is no sufficient reason to prevent a disclosure for the purpose of justice"; and the same rule, "that there is no privilege of this description in the case of a medical man," was repeated by Best, C.J., in Broad *v.* Pitt 3 C.P. 518.

From these cases it is clear that a medical man not only may, but must, if necessary, violate professional confidences when answering questions material to an issue in a court of law.

2. Upon the second question there have been, not unnaturally, very few expressions of judicial opinion. It is admitted as a general principle that a medical man should not disclose communications made to him in his professional capacity, and in the Scotch Court of Session it has been judicially decided that "secrecy is an essential condition of the contract between a medical man and his employers, and breach of secrecy affords a relevant ground for an action of damages." A.B. *v.* C.D., 14 Dunlop, second series, 177. But upon this rule of the general inviolability of professional confidences (outside a court of law) the custom of the medical profession has engrafted two exceptions, (1) in cases of criminal communications; (2) where violation of secrecy is considered necessary for the protection of wife or children (to which may be added a third exception, suggested by the court in A.B. *v.* C.D., cited above—viz., instances conducive to the ends of science, though concealment of individuals should in such cases be secured). These two exceptions were the subject of testimony given by eminent medical witnesses in the case of Kitson *v.* Playfair in 1896 as being generally recognised among medical men, but they are not judicially recognised as invariable exceptions, as is shown by the summing-up of Sir H. Hawkins in that case. The defendant pleaded privilege on the ground of the second of the above exceptions, and though the point was not decided owing to the jury finding that the defendant had been influenced by an indirect motive the following passages are relevant to the matter of the obligation of secrecy among medical men. On medical evidence as to professional privilege being given Sir H. Hawkins said: "The question of privilege is for me to decide, and, so far as it concerns that question, I shall not be influenced by this evidence."—*Times*, March 26th, 1896.

The following passage occurs in the report of the judge's summing-up: "The medical profession might, no doubt, discuss among themselves rules for their own guidance; but they had not power to impose

the rules they made upon the public. The medical men called said there were two exceptions to the rule imposing on them secrecy as to confidences gained during professional attendance.

"The first was as to giving evidence in a court of law. His lordship did not altogether agree with what they said as to that. It all depended on the judge. The judge might in some cases refuse to commit a medical man for contempt in refusing to reveal confidences. Each case would be governed by particular circumstances, and the ruling of the judge would be the test.

"Secondly, that if there were circumstances from which they supposed a crime was intended to be committed they would have to inform the public prosecutor. If the doctor were called in merely to attend a woman needing physical aid, his lordship doubted very much whether he would be justified in going to the police and saying, 'I have been attending a woman who has been trying to procure an abortion.' That would be a monstrous cruelty. Therefore to say there was a general rule was going too far. There was a third exception—namely, a communication between the doctor and his wife or children. That required a great deal of limitation. For instance, there were cases in which the wife did not require protection, and where it would be a wanton act to communicate a secret to her. That was a delicate question, but did not arise in the present case. The law as to words spoken on a privileged occasion was pretty well known."—*Times*, March 28th, 1896.

From this it seems clear that on the question of violation of professional secrecy a medical man is in no more favoured position than anyone else, and further, that circumstances which according to the custom of the medical profession might be deemed to exonerate him from the imputation of improper violation of secrecy might nevertheless in a court of law be deemed an insufficient justification.

THE ROYAL COMMISSION ON THE METROPOLITAN WATER-SUPPLY.

WE continue our report of the fifty-seventh sitting of the Royal Commissioners.

In answer to the CHAIRMAN Sir FREDERICK DIXON-HARTLAND said that the Conservators objected to any power being given to the Local Government Board to "relax" (increase) the limits of the water companies' intake from the Thames. They felt very strongly on this point because Parliament had settled the amount which the companies were to be allowed to draw after a most careful investigation both in the House and before committees. If a Minister had a right at a moment's notice to overthrow everything that Parliament had decided with regard to the amount of water which might be taken the Conservators would not know where they were. They strongly objected to such a change. They had a duty to fulfil with regard to the navigation and it was not right that the Acts passed to enable them to carry out these duties should be set aside for the sake of the water companies.

The CHAIRMAN asked whether the Conservators would be satisfied if the discretionary power of allowing more water to be taken should be vested in the Conservancy. The witness replied that if that were done he would state with perfect candour what line the Conservators would take. They would allow the water companies to take any amount of water in time of drought so long as it did not interfere with navigation.

The CHAIRMAN said that it had been suggested that instead of an enormous storage which in average years would be useless it might be well in a year of emergency to vest in some body the discretion of saying: "Very well, take more water from the Thames; let the barges go aground for three months if you please." The witness pointed out that it was not only the upper river navigation which the Conservators had to think about: it was the interference with the navigation of the lower part of the river which was the most serious thing.

The CHAIRMAN pointed out that the suggestion which he had just made was the way in which the matter had been put to the Commissioners by the metropolitan water companies—namely, that it would be better in an exceptional period that a little inconvenience should be suffered below the last weir than it would be to spend millions of money in making reservoirs which would perhaps be only required once in half a century. The witness pointed out that the Conservators had at the present time, as a matter of fact, discretionary power to allow the water companies to draw more than their statutory limits. They were not compelled to ask for an injunction against the companies if they drew more than they ought, and they had not done so as a matter of fact. To take an instance, they had not exercised their powers against the Southwark and Vauxhall Company for many years, although they were taking more than they were allowed by Parliament. They exercised their powers when the Southwark and Vauxhall Company declined to make provision for any storage at all.

Major-General SCOTT suggested that the demands of navigation would have to give way if there was an absolute scarcity of water in London. The witness said that the companies were bound to go somewhere else into their own districts as, for instance, the New River Company had been. It was not for the Thames Conservators to save them from the expense of making storage reservoirs; it was the duty of the water companies to supply their customers and to make the necessary arrangements for doing so.

The CHAIRMAN suggested that the power of exemption with regard to the statutory limits of the intake of a company would only be extended in an extraordinary emergency like that of last year. The witness replied that as far as the Conservators were concerned they would not interfere with an over-draught from the Thames if the navigation was not thereby interfered with. At the present time barges had some difficulty in getting under Kew Bridge. It was necessary that a certain amount of water should pass down from the upper river to clear away the mud. This accumulation was due to the fact that a sufficient amount of water had not recently passed down. At least 200,000,000 gallons should be allowed to pass daily over Teddington Weir.

In answer to Mr. DE BOCK PORTER, the witness said that the companies ought not to be allowed to take more than 130,000,000 gallons from the Thames on any one day. If the metropolitan water companies were ordered to give storage for 90 days there was plenty of water in the Thames to supply London for a hundred years to come. There was no difficulty in having a sufficiency of water if sufficient storage were provided. The Conservators simply wished that the water companies should be made to provide for a dry season and there would then be no difficulty in the matter.

In answer to Sir JOHN DORINGTON the witness said that they did not protest against 130,000,000 gallons being taken daily because the matter had been settled by Parliament and they could not help themselves. At the present time, however, the position of the Conservators was this: the metropolitan water companies had been permitted by Acts of Parliament to take this amount and they did not wish to interfere with that arrangement because they would not like to interfere with "vested rights."

In answer to Mr. DE BOCK PORTER the witness said that the Conservators had not a sufficient amount of money at their disposal to carry on all the work of dredging which ought to be done. If the upper channels were deepened more water would come down the river and there would be less difficulty in times of flood, and if more money could be allowed for dredging it would be of the greatest advantage to the river.

In answer to the CHAIRMAN the witness said that they had not lately met with much opposition from local authorities with regard to their insistence on the prevention of pollution. Lord Valentia lately brought a deputation to meet them and the amusing part of it was that Lord Valentia himself represented Oxford and that a representative of a neighbouring authority complained chiefly that Oxford polluted the river and that his clients were not allowed to do the same.[1]

The CHAIRMAN asked when were we to have salmon in the Thames. The witness did not name a time, but he stated that smelts now come up as far as Blackwall and that salmon trout are to be put into the river at Sunbury this year.

Sir EDWARD FRANKLAND in answer to the CHAIRMAN said that he obtained the water for his examinations from the filter wells of the Chelsea, West Middlesex, Grand Junction, Southwark and Vauxhall, and Lambeth Companies. The witness handed in a diagram and in answer to the CHAIRMAN he said that there was a rise in the number of microbes in filtered water corresponding with the rise in the number of microbes in the "raw" water, but that this increase was by no means uniform or equal—for instance, in January, 1894, there was a great rise in the number of microbes in the "raw" water and only a slight rise in the number of those in the filtered water, whereas in February, 1895, there was a smaller rise in the number of microbes in "raw" water but a larger rise in the number of microbes in the filtered water. The witness said that these anomalies were capable of a pretty feasible explanation. Different companies have

[1] A report of this meeting appeared in THE LANCET of Feb. 18th, p. 459.

different amounts of storage capacity. The samples of river water and of filtered water were taken on the same day but possibly the storage reservoirs of some of these companies might have been taken from the river a day or two or three days before the flood came and they would then have been using for filtration water containing a lower number of microbes.

In answer to the CHAIRMAN, who said that he always understood language but confessed that he was puzzled by diagrams, the witness said that the microbes increased with the flood.

The CHAIRMAN remarked that they had heard the contrary from high scientific authorities. The witness replied that the opinion he had expressed had been tested by him for several years.

The CHAIRMAN asked if filtration was properly done whether it mattered how many microbes there were in the raw water, whether the water would come out equally good. The witness replied that that was Mr. Dewar's opinion, but that it did not agree with his experience and that was why he had made out this diagram as a test of his experiences.

In answer to Major-General SCOTT the witness said that their information about the action of sand filters in removing the microbes was still in a very rudimentary state. He had no doubt from observations which he had been making now for some years that every day the water was stored in a reservoir it improved greatly in its microbial quality. Lake waters contained few bacteria, and although the streams which supplied them may contain a great many they disappeared when they got into the lake. For example, the sewage of Buffalo goes into the St. Lawrence above the falls, the microbes survive that fall and the mouth of the river where it enters Lake Ontario is charged with an enormous number of microbes, but within a mile or two of the entrance of the river the water of the lake is nearly free from microbes. The witness gave it as his opinion that the safest treatment for flood water, and, indeed, for any water, is to put it into a subsiding reservoir.

With regard to the question of filtration the CHAIRMAN asked whether anything had been done to carry out the recommendations of Lord Balfour's Commission. The witness said that improvements had been made. Lord Balfour's Commission had abstained from laying down any regulations for filtration but had suggested that regulations should be made after inquiry, but the witness did not think that engineers knew enough of the matter to lay down any definite regulation.

The CHAIRMAN could suggest any system by which the water could be continued and the storage of the water could be carried on. The witness replied that the more efficient filtration was the more 100 per cubic centimetre the use of fine sand, stratum of fine sand. The Water Companies had their filtration of the other Th[illegible]

Major-[illegible] of fact analysis [illegible] microbes per cubic centimetre [illegible] filtered water supplied by [illegible] that this was so. There [illegible] which required further investigation. [illegible] witness did not think that the [illegible] in winter caused an increase in the number [illegible] microbes. It was difficult to account for the increase—in the middle of summer all the filters of the companies went wrong at the same time. The witness did not think it would be right at the present time to impose a statutory obligation with regard to the number of microbes present in the water supplied by a company.

Mr. CRIPPS asked whether those microbes which multiplied so quickly were mischievous at all. The witness said that in the seven years during which he had been making observations he had not been able to catch a mischievous microbe; they might, as far as he knew, be nutritious.

In answer to Sir JOHN DORINGTON the witness said that he examined specimens of water at Reigate and Mr. Dewar examined them at Kensington. Water ought really to be examined on the premises of the companies. His laboratory was too far off. It would be best for bacteriologists to take samples and cultivate them on the spot because cultivation should be carried out without delay.

In answer to the CHAIRMAN the witness said that in his opinion the lakes in the north of England contained better water than the Welsh lakes. It was not necessary to go to Wales for an additional supply of water for London; there were other places, notably the lakes of Cumberland and Westmorland. The Lakes District water had been clearly proved by the Duke of Richmond's Commission to be as good as the best Welsh water, and the best Welsh water had been already appropriated by Birmingham and Liverpool. The lakes of Cumberland and of Westmorland had been very little appropriated up to the present time. Thirlmere had been taken by Manchester but Ullswater and Hawes Water were still to be had. The witness said that when he examined Ullswater it was of such excellent quality that it was nearly equal to spring water, and better than that of Thirlmere, which has been appropriated by Manchester.

METROPOLITAN SCHOOLS OF MEDICINE AND THE UNIVERSITY OF LONDON.

THE following memorandum has been signed by the representatives of all the Metropolitan Schools of Medicine and forwarded to the University of London Commissioners:—

1. The schools which are parties to the subjoined memorandum are the Faculties of Medicine in University and King's Colleges and the 10 other Schools of Medicine named by the Gresham University Commissioners for immediate admission as schools of the University of London (Report, p. xxii.), viz., the Medical Schools of the Charing-Cross Hospital, of Guy's Hospital, of the London Hospital, of the Middlesex Hospital, of St. Bartholomew's Hospital, of St. George's Hospital, of St. Mary's Hospital, of St. Thomas's Hospital, of the Westminster Hospital, and the London School of Medicine for Women. They are educating between them about 3000 students and employ about 450 teachers of various grades.

The organisation of medical education in London on university lines is of long standing, though until now it has lacked direct connexion with, and influence in, a university. The schools submit that no faculty will bring such immediate strength to the remodelled University of London as the Faculty of Medicine.

2. The schools would urge upon the Commissioners that, in the first instance, all the principal teachers of the schools, including the clinical teachers—that is, all those who are not under the control of other individual teachers, but only of the general authority of their school—should be recognised as teachers of the University [1]; and that they, together with the teachers, if any, appointed by the University itself, should be constituted the Faculty of Medicine, with such rights of addressing the University authorities and such representation on the Board or Boards of Studies of the Faculty as the Commissioners may determine.

3. In view of the number of teachers and students who will from the outset be concerned in the faculty of medicine in view of the large public interests involved in their work and of the peculiar position of degrees in medicine as being also certificates of competence recognised by the State, the schools submit that the representation on the Senate assigned by the Commissioners to so important a division of the University should not be less than that assigned to any other single faculty.

4. In view of the serious waste of labour at present occasioned in the London schools by the variety of curricula and sets of examinations for which students have to be prepared, and the different times of the year at which the examinations of the several examining bodies are held, the schools trust that the University will endeavour to carry out an important recommendation of the Gresham University Commission (Report, p. xlii.) by entering into relations with the Royal Colleges of Physicians and Surgeons for the purpose of holding joint examinations in some parts of the medical curriculum.[2]

Signed:

For the Medical Faculty of University College, RICKMAN J. GODLEE.
" " King's College, JOHN CURNOW.
For the Medical School of the Charing Cross Hospital, STANLEY BOYD.
" " Guy's Hospital, FREDERICK TAYLOR.
" " the London Hospital, J. HUTCHINSON, Jun.
" " the Middlesex Hospital, JAMES KINGSTON FOWLER.
" " St. Bartholomew's Hospital, T. W. SHORE.
" " St. George's Hospital, ISAMBARD OWEN.
" " St. Mary's Hospital, HERBERT PAGE.
" " St. Thomas's Hospital, J. F. PAYNE.
" " the Westminster Hospital, A. H. TUBBY.
" " the London School of Medicine for Women, E. GARRETT ANDERSON.

March 13th, 1899.

[1] The Faculty of Medicine of University College is of opinion that this should apply only to teachers of purely medical subjects.

[2] The Faculty of Medicine of University College is of opinion that the University should retain the management of its examinations in its own hands.

the rules they made upon the public. The medical men called said there were two exceptions to the rule imposing on them secrecy as to confidences gained during professional attendance.

"The first was as to giving evidence in a court of law. His lordship did not altogether agree with what they said as to that. It all depended on the judge. The judge might in some cases refuse to commit a medical man for contempt in refusing to reveal confidences. Each case would be governed by particular circumstances, and the ruling of the judge would be the test.

"Secondly, that if there were circumstances from which they supposed a crime was intended to be committed they would have to inform the public prosecutor. If the doctor were called in merely to attend a woman needing physical aid, his lordship doubted very much whether he would be justified in going to the police and saying, 'I have been attending a woman who has been trying to procure an abortion.' That would be a monstrous cruelty. Therefore to say there was a general rule was going too far. There was a third exception—namely, a communication between the doctor and his wife or children. That required a great deal of limitation. For instance, there were cases in which the wife did not require protection, and where it would be a wanton act to communicate a secret to her. That was a delicate question, but did not arise in the present case. The law as to words spoken on a privileged occasion was pretty well known."—*Times*, March 28th, 1899.

From this it seems clear that on the question of violation of professional secrecy a medical man is in no more favoured position than anyone else, and further, that circumstances which according to the custom of the medical profession might be deemed to exonerate him from the imputation of improper violation of secrecy might nevertheless in a court of law be deemed an insufficient justification.

THE ROYAL COMMISSION ON THE METROPOLITAN WATER-SUPPLY.

WE continue our report of the fifty-seventh sitting of the Royal Commissioners.

In answer to the CHAIRMAN Sir FREDERICK DIXON-HARTLAND said that the Conservators objected to any power being given to the Local Government Board to "relax" (increase) the limits of the water companies' intake from the Thames. They felt very strongly on this point because Parliament had settled the amount which the companies were to be allowed to draw after a most careful investigation both in the House and before committees. If a Minister had a right at a moment's notice to overthrow everything that Parliament had decided with regard to the amount of water which might be taken the Conservators would not know where they were. They strongly objected to such a change. They had a duty to fulfil with regard to the navigation and it was not right that the Acts passed to enable them to carry out these duties should be set aside for the sake of the water companies.

The CHAIRMAN asked whether the Conservators would be satisfied if the discretionary power of allowing more water to be taken should be vested in the Conservancy. The witness replied that if that were done he would state with perfect candour what line the Conservators would take. They would allow the water companies to take any amount of water in time of drought so long as it did not interfere with navigation.

The CHAIRMAN said that it had been suggested that instead of an enormous storage which in average years would be useless it might be well in a year of emergency to vest in some body the discretion of saying: "Very well, take more water from the Thames; let the barges go aground for three months if you please." The witness pointed out that it was not only the upper river navigation which the Conservators had to think about: it was the interference with the navigation of the lower part of the river which was the most serious thing.

The CHAIRMAN pointed out that the suggestion which he had just made was the way in which the matter had been put to the Commissioners by the metropolitan water companies—namely, that it would be better in an exceptional period that a little inconvenience should be suffered below the last weir than it would be to spend millions of money in making reservoirs which would perhaps be only required once in half a century. The witness pointed out that the Conservators had at the present time, as a matter of fact, discretionary power to allow the water companies to draw more than their statutory limits. They were not compelled to ask for an injunction against the companies if they drew more than they ought, and they had not done so as a matter of fact. To take an instance, they had not exercised their powers against the Southwark and Vauxhall Company for many years, although they were taking more than they were allowed by Parliament. They exercised their powers when the Southwark and Vauxhall Company declined to make provision for any storage at all.

Major-General SCOTT suggested that the demands of navigation would have to give way if there was an absolute scarcity of water in London. The witness said that the companies were bound to go somewhere else into their own districts as, for instance, the New River Company had been. It was not for the Thames Conservators to save them from the expense of making storage reservoirs; it was the duty of the water companies to supply their customers and to make the necessary arrangements for doing so.

The CHAIRMAN suggested that the power of exemption with regard to the statutory limits of the intake of a company would only be extended in an extraordinary emergency like that of last year. The witness replied that as far as the Conservators were concerned they would not interfere with an over-draught from the Thames if the navigation was not thereby interfered with. At the present time barges had some difficulty in getting under Kew Bridge. It was necessary that a certain amount of water should pass down from the upper river to clear away the mud. This accumulation was due to the fact that a sufficient amount of water had not recently passed down. At least 200,000,000 gallons should be allowed to pass daily over Teddington Weir.

In answer to Mr. DE BOCK PORTER, the witness said that the companies ought not to be allowed to take more than 130,000,000 gallons from the Thames on any one day. If the metropolitan water companies were ordered to give storage for 90 days there was plenty of water in the Thames to supply London for a hundred years to come. There was no difficulty in having a sufficiency of water if sufficient storage were provided. The Conservators simply wished that the water companies should be made to provide for a dry season and there would then be no difficulty in the matter.

In answer to Sir JOHN DORINGTON the witness said that they did not protest against 130,000,000 gallons being taken daily because the matter had been settled by Parliament and they could not help themselves. At the present time, however, the position of the Conservators was this: the metropolitan water companies had been permitted by Acts of Parliament to take this amount and they did not wish to interfere with that arrangement because they would not like to interfere with "vested rights."

In answer to Mr. DE BOCK PORTER the witness said that the Conservators had not a sufficient amount of money at their disposal to carry on all the work of dredging which ought to be done. If the upper channels were deepened more water would come down the river and there would be less difficulty in times of flood, and if more money could be allowed for dredging it would be of the greatest advantage to the river.

In answer to the CHAIRMAN the witness said that they had not lately met with much opposition from local authorities with regard to their insistence on the prevention of pollution. Lord Valentia lately brought a deputation to meet them and the amusing part of it was that Lord Valentia himself represented Oxford and that a representative of a neighbouring authority complained chiefly that Oxford polluted the river and that his clients were not allowed to do the same.[1]

The CHAIRMAN asked when were we to have salmon in the Thames. The witness did not name a time, but he stated that smelts now come up as far as Blackwall and that salmon trout are to be put into the river at Sunbury this year.

Sir EDWARD FRANKLAND in answer to the CHAIRMAN said that he obtained the water for his examinations from the filter wells of the Chelsea, West Middlesex, Grand Junction, Southwark and Vauxhall, and Lambeth Companies. The witness handed in a diagram and in answer to the CHAIRMAN he said that there was a rise in the number of microbes in filtered water corresponding with the rise in the number of microbes in the "raw" water, but that this increase was by no means uniform or equal—for instance, in January, 1894, there was a great rise in the number of microbes in the "raw" water and only a slight rise in the number of those in the filtered water, whereas in February, 1895, there was a smaller rise in the number of microbes in "raw" water but a larger rise in the number of microbes in the filtered water. The witness said that these anomalies were capable of a pretty feasible explanation. Different companies have

[1] A report of this meeting appeared in THE LANCET of Feb. 18th, p. 459.

different amounts of storage capacity. The samples of river water and of filtered water were taken on the same day but possibly the storage reservoirs of some of these companies might have been taken from the river a day or two or three days before the flood came and they would then have been using for filtration water containing a lower number of microbes.

In answer to the CHAIRMAN, who said that he always understood language but confessed that he was puzzled by diagrams, the witness said that the microbes increased with the flood.

The CHAIRMAN remarked that they had heard the contrary from high scientific authorities. The witness replied that the opinion he had expressed had been tested by him for several years.

The CHAIRMAN asked if filtration was properly done whether it mattered how many microbes there were in the raw water, whether the water would come out equally good. The witness replied that that was Mr. Dewar's opinion, but that it did not agree with his experience and that was why he had made out this diagram as a test of his experiences.

In answer to Major-General SCOTT the witness said that their information about the action of sand filters in removing the microbes was still in a very rudimentary state. He had no doubt from observations which he had been making now for some years that every day the water was stored in a reservoir it improved greatly in its microbial quality. Lake waters contained few bacteria, and although the streams which supplied them may contain a great many they disappeared when they got into the lake. For example, the sewage of Buffalo goes into the St. Lawrence above the falls, the microbes survive that fall and the mouth of the river where it enters Lake Ontario is charged with an enormous number of microbes, but within a mile or two of the entrance of the river the water of the lake is nearly free from microbes. The witness gave it as his opinion that the safest treatment for flood water, and, indeed, for any water, is to put it into a subsiding reservoir.

With regard to the question of filtration the CHAIRMAN asked whether anything had been done to carry out the recommendations of Lord Balfour's Commission. The witness said that improvements had been made. Lord Balfour's Commission had abstained from laying down any regulations for filtration but had suggested that regulations should be made after inquiry, but the witness did not think that engineers knew enough about the matter to lay down any definite regulations.

The CHAIRMAN asked whether the witness could suggest any system by which the inquiry could be continued and the storage of Thames water could be safely carried on. The witness replied that he thought it was possible after efficient filtration to keep the number of microbes below 100 per cubic centimetre and that this was best effected by the use of fine sand on the surface of the filter, for a thin stratum of fine sand was better than a thick stratum of coarse sand. The West Middlesex Company uses very fine sand and their filtration is as a rule more perfect than that of any of the other Thames companies which use coarser sand.

Major-General SCOTT asked whether as a matter of fact analysis did not show that the number of 100 microbes per cubic centimetre was frequently exceeded in filtered water supplied by the companies. The witness replied that this was so. There were, however, some points which required further investigation. For his own part the witness did not think that the freezing of the sand in winter caused an increase in the number of microbes. It was difficult to account for the increase—in the middle of summer all the filters of the companies went wrong at the same time. The witness did not think it would be right at the present time to impose a statutory obligation with regard to the number of microbes present in the water supplied by a company.

Mr. CRIPPS asked whether those microbes which multiplied so quickly were mischievous at all. The witness said that in the seven years during which he had been making observations he had not been able to catch a mischievous microbe; they might, as far as he knew, be nutritious.

In answer to Sir JOHN DORINGTON the witness said that he examined specimens of water at Reigate and Mr. Dewar examined them at Kensington. Water ought really to be examined on the premises of the companies. His laboratory was too far off. It would be best for bacteriologists to take samples and cultivate them on the spot because cultivation should be carried out without delay.

In answer to the CHAIRMAN the witness said that in his opinion the lakes in the north of England contained better water than the Welsh lakes. It was not necessary to go to Wales for an additional supply of water for London; there were other places, notably the lakes of Cumberland and Westmorland. The Lakes District water had been clearly proved by the Duke of Richmond's Commission to be as good as the best Welsh water, and the best Welsh water had been already appropriated by Birmingham and Liverpool. The lakes of Cumberland and of Westmorland had been very little appropriated up to the present time. Thirlmere had been taken by Manchester but Ullswater and Hawes Water were still to be had. The witness said that when he examined Ullswater it was of such excellent quality that it was nearly equal to spring water, and better than that of Thirlmere, which has been appropriated by Manchester.

METROPOLITAN SCHOOLS OF MEDICINE AND THE UNIVERSITY OF LONDON.

THE following memorandum has been signed by the representatives of all the Metropolitan Schools of Medicine and forwarded to the University of London Commissioners:—

1. The schools which are parties to the subjoined memorandum are the Faculties of Medicine in University and King's Colleges and the 10 other Schools of Medicine named by the Gresham University Commissioners for immediate admission as schools of the University of London (Report, p. xxii.), viz., the Medical Schools of the Charing-Cross Hospital, of Guy's Hospital, of the London Hospital, of the Middlesex Hospital, of St. Bartholomew's Hospital, of St. George's Hospital, of St. Mary's Hospital, of St. Thomas's Hospital, of the Westminster Hospital, and the London School of Medicine for Women. They are educating between them about 3000 students and employ about 450 teachers of various grades.

The organisation of medical education in London on university lines is of long standing, though until now it has lacked direct connexion with, and influence in, a university. The schools submit that no faculty will bring such immediate strength to the remodelled University of London as the Faculty of Medicine.

2. The schools would urge upon the Commissioners that, in the first instance, all the principal teachers of the schools, including the clinical teachers—that is, all those who are not under the control of other individual teachers, but only of the general authority of their school—should be recognised as teachers of the University [1]; and that they, together with the teachers, if any, appointed by the University itself, should be constituted the Faculty of Medicine, with such rights of addressing the University authorities and such representation on the Board or Boards of Studies of the Faculty as the Commissioners may determine.

3. In view of the number of teachers and students who will from the outset be concerned in the faculty of medicine in view of the large public interests involved in their work and of the peculiar position of degrees in medicine as being also certificates of competence recognised by the State, the schools submit that the representation on the Senate assigned by the Commissioners to so important a division of the University should not be less than that assigned to any other single faculty.

4. In view of the serious waste of labour at present occasioned in the London schools by the variety of curricula and sets of examinations for which students have to be prepared, and the different times of the year at which the examinations of the several examining bodies are held, the schools trust that the University will endeavour to carry out an important recommendation of the Gresham University Commission (Report, p. xlii.) by entering into relations with the Royal Colleges of Physicians and Surgeons for the purpose of holding joint examinations in some parts of the medical curriculum.[2]

Signed:

For the Medical Faculty of University College,
RICKMAN J. GODLEE.
" " King's College,
JOHN CURNOW.
For the Medical School of the Charing Cross Hospital,
STANLEY BOYD.
" " Guy's Hospital,
FREDERICK TAYLOR.
" " the London Hospital,
J. HUTCHINSON, Jun.
" " the Middlesex Hospital,
JAMES KINGSTON FOWLER.
" " St. Bartholomew's Hospital,
T. W. SHORE.
" " St. George's Hospital,
ISAMBARD OWEN.
" " St. Mary's Hospital,
HERBERT PAGE.
" " St. Thomas's Hospital,
J. F. PAYNE.
" " the Westminster Hospital,
A. H. TUBBY.
" " the London School of Medicine for Women,
E. GARRETT ANDERSON.

March 13th, 1899.

[1] The Faculty of Medicine of University College is of opinion that this should apply only to teachers of purely medical subjects.

[2] The Faculty of Medicine of University College is of opinion that the University should retain the management of its examinations in its own hands.

THE PREVENTION OF TUBERCULOSIS.

IT has become universally recognised that tuberculosis is a preventable disease, that the disease itself is not hereditary but only the predisposition to it, and, lastly, that it is a communicable disease from the sick to the sound—i.e., that the tuberculous animal whether human or not is a source of danger to other animals. These ideas have permeated the country and it is allowed that something should be done towards the consummation of the desired tactics for lessening and in time, perhaps, getting rid of the tuberculous scourge. A National Association for the Prevention of Consumption and Other Forms of Tuberculosis has been formed primarily in London but branches have also been started all over the kingdom. We therefore intend to give in this column an epitome of such proceedings as may be taken by the various authorities, municipal and other, with regard to educating and organising the people in the matter of this important question. Concerning the work of this association we have kept our readers well informed from time to time and we have no doubt that the fact of H.R.H. the Prince of Wales being its President will do more to convince the man in the street of the excellence of its intentions than even the soundness of the pathological doctrines upon which its work is founded.

CUMBERLAND.

A public meeting of the Cumberland Branch of the National Association for Prevention of Consumption and other forms of Tuberculosis was held in the Town Hall, Carlisle, on March 2nd. The meeting had been convened by the Lord-Lieutenant (Lord Muncaster), the High Sheriff (Mr. G. G. Kirklinton), the Mayors of Carlisle, Workington, and Whitehaven, and the Chairman of the County Council. There was a large attendance of medical men and county councillors.

Dr. R. W. PHILIP of Edinburgh, who had been specially invited, spoke of the importance of the open-air treatment and referred to the Edinburgh sanatorium.

The Bishop of CARLISLE, in moving the first resolution—i.e., that constituting the meeting a branch of the National Association—made an admirable speech in which he mentioned the great influence that the clergy should have for good in spreading information as to ways and means of prevention.

Other resolutions dealing with the organisation of the branch were put and passed. With a view to the future erection of a sanatorium for the county a number of subscriptions have already been promised, including an anonymous one of £400.

YORK.

The Sanitary Committee of the York City Council have issued a pamphlet signed by Dr. E. M. Smith and written in very plain, simple language which they commend to the notice of all citizens. It emphasises the necessity and the possibility of prevention if only some simple rules are adhered to. Directions are given as to disinfection and the paramount importance of fresh air and sunlight. Further stress is laid upon infection of milk and the danger of phthisical persons attending upon cattle.

WORCESTER.

The medical officer of health of the city of Worcester has prepared a report upon tuberculosis which has been issued separately. It deals with the matter under the following heads:—

1. To what extent tuberculosis exists at the present time in man and in cattle.
2. The means by which the disease is conveyed to the healthy from those already infected.
3. The conditions favourable and inimical to the growth and spread of the disease.
4. The administrative procedures that can be taken by sanitary authorities to stamp out the disease and the recommendations of the Royal Commission.

CREWE.

On Feb. 28th a special meeting of the Health Committee of the Crewe Town Council was held to consider the question of the prevention of tuberculosis. Dr. Meredith Young laid before the committee a report on the death-rate from tuberculosis and also a programme of suggested preventive measures. The following were finally agreed to:—

1. That the medical officer of health be empowered to offer facilities for the bacteriological examination of material from suspected cases of phthisis and other forms of tuberculosis, the result of such examination, if positive, to be considered a notification of the disease, but that no action whatever be taken on the receipt of this information except at the request of the medical attendant, the patient, or his relatives.
2. That the medical officer of health be empowered to have the milk-supply to the Isolation Hospital bacteriologically examined from time to time as often as he may deem necessary.
3. That disinfection of houses, bedding, clothing, &c., be done by the Corporation staff free of charge in all cases of tuberculosis when so requested by medical practitioners or by the relatives.
4. That the medical officer of health insert the sum of £25 in the annual health department estimates to cover the expenses in connexion with the obtaining of weekly returns of sickness from all the friendly and sick societies in the borough, and that he formulate at an early date a scheme for obtaining these from the various secretaries and submit it to the health committee.
5. That the medical officer of health draw up a simply worded handbill on the prevention of tuberculosis and have this printed and circulated to every house in the town.
6. That the town clerk and the medical officer of health write to the Local Government Board asking that the New Dairies', Cowsheds', and Milkshops' Regulations framed by the Council should be forwarded as early as possible, otherwise farmers and others concerned would not be able to carry out any necessary alterations at a suitable time.
7. That the Royal Agricultural Society be accorded the best thanks of the committee for their kindness in forwarding copies of leaflets on tuberculosis in dairy stock, and that the medical officer of health circulate these to every cow-keeper within or around the district.

PLYMOUTH.

A public meeting was held in St. Andrew's Hall, Plymouth, on Feb. 21st to form a branch for Devon and Cornwall of the National Association for the Prevention of Consumption. The Earl of Mount Edgecumbe was in the chair and Dr. Theodore Williams and Dr. Childs were present from London as representing the association.—The CHAIRMAN spoke of the formation of the association and pointed out that the association in no way desired to exercise any compulsion.—Mr. PAUL SWAIN in a very excellent speech pointed out that in his opinion the sanitary authorities would have to take the same steps for the prevention of consumption as they did for the prevention of scarlet fever and small-pox. The conscientious objector would of course be to the fore but for all that he hoped that the people of Devon and Cornwall would join the society in large numbers.—Dr. CHILDS emphasised the fact that consumption was a national and not a merely local question.—The resolution moved by the Mayor of DEVONPORT expressing the desirability of forming a branch of the association and inviting all present to form a general committee for furthering this object was carried unanimously. An executive committee was also formed. The secretary of the meeting to whose hard work and organisation much of its success was due was Dr. Frank Bushnell.

CARDIFF.

On Feb. 28th the Health Committee of the Cardiff Corporation received a deputation from the Cardiff Medical Society with the view of inducing the Council to take measures for the prevention of tuberculosis. The President, Dr. Rhys Griffiths, Dr. Paterson, the Secretary, and Dr. Fiddian, the treasurer, addressed the committee at length. It was agreed to have a series of special meetings to discuss the matter. The medical officer of health, Dr. Walford, has sent in a special report dealing with tuberculosis.

THE CAPE.

A movement is on foot for the better prevention of tuberculosis upon board ship, especially upon the Cape steamers. We learn from *South Africa* of March 4th that a proposal has been made to run a line of hospital ships for "consumptives" to the Cape where they would be entertained at a receiving house until well enough to look for work.

(To be continued.)

SIXTH INTERNATIONAL OTOLOGICAL CONGRESS, 1899.

THIS Congress is to be held in London from August 8th to 12th, under the presidency of Dr. Urban Pritchard. The British Organisation Committee which numbers over 70 members from Great Britain and the Colonies has Mr. A. E. Cumberbatch for its treasurer and Mr. Cresswell Baber for secretary-general. The meetings will be held at the Examination Hall of the Royal College of Physicians of London and Royal College of Surgeons of England. On Monday evening, August 7th, a preliminary reception will be held by the president elect. The official languages of the Congress will be English, French, German, and Italian. The

subscription, to include a copy of the transactions, is fixed at £1, to be paid to the treasurer, Mr. A. E. Cumberbatch, 80, Portland-place, London, W., before the opening of the Congress. The subject chosen for special discussion is "Indications for opening the Mastoid in Chronic Suppurative Otitis Media," which will be introduced by Professor W. Macewen of Glasgow, Dr. H. Knapp of New York, Dr. Luc of Paris, and Professor Politzer of Vienna. A museum of specimens and instruments relating to otology, shown by members, will be held during the meeting. Communications regarding the museum should be addressed to Mr. A. H. Cheatle, 117, Harley-street, London, W. Intending members of the Congress are requested to send in their names to the honorary secretary-general as soon as possible and in any case not later than May 1st. Titles of communications, together with a short abstract of the same, should be sent to the honorary secretary-general by the same date. According to the regulations of the Congress no papers shall exceed 15 minutes in reading; therefore all long communications should be read in abstract.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6540 births and 4853 deaths were registered during the week ending March 11th. The annual rate of mortality in these towns, which had increased in the three preceding weeks from 19·5 to 21·6 per 1000, further rose last week to 22·2. In London the rate was 22·4 per 1000, while it averaged 22·0 in the 32 provincial towns. The lowest death-rates in these towns were 13·5 in Cardiff, 13·7 in Gateshead, 16·3 in Croydon, and 16·6 in Swansea; the highest rates were 28·0 in Manchester, 29·7 in Preston, 29·8 in Oldham, and 30·4 in Halifax. The 4853 deaths in these towns included 409 which were referred to the principal zymotic diseases, against 364 and 437 in the two preceding weeks; of these 114 resulted from measles, 111 from whooping-cough, 90 from diphtheria, 43 from diarrhœa, 32 from scarlet fever, and 22 from "fever" (principally enteric). No death from any of these diseases occurred last week in Croydon or in Burnley; in the other towns they caused the lowest death-rates in Norwich, Gateshead, and Wolverhampton, and the highest rates in West Ham, Birkenhead, Manchester, and Salford. The greatest mortality from measles occurred in West Ham, Derby, Bolton, and Manchester; scarlet fever in Derby and Salford; and whooping-cough in Plymouth, Birkenhead, Preston, Halifax, and Hull. The mortality from "fever" showed no marked excess in any of the large towns. The 90 deaths from diphtheria included 36 in London, seven in Sheffield, five in Leicester, five in Leeds, four in Cardiff, four in Liverpool, and three each in West Ham, Portsmouth, Swansea, and Salford. No fatal case of small-pox was registered last week in any of the 33 large towns; and two small-pox patients were under treatment in the Metropolitan Asylums Hospitals on Saturday last, March 11th. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of last week was 2540, against 2575 and 2584 on the two preceding Saturdays; 217 new cases were admitted during the week, against 202, 241, and 236 in the two preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 484 and 470 in the two preceding weeks, rose again last week to 529, but were 29 below the corrected average. The causes of 65, or 1·3 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Salford, Leeds, Newcastle-upon-Tyne, and in 11 other smaller towns; the largest proportions of uncertified deaths were registered in Leicester, Liverpool, Blackburn, Halifax, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 24·1 and 25·1 per 1000 in the two preceding weeks, declined to 22·8 during the week ending March 11th, but exceeded by 0·6 per 1000 the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 10·2 in Perth and 16·9 in Dundee to 25·5 in Leith and 28·4 in Aberdeen. The 697 deaths in these towns included 30 which were referred to whooping-cough, 13 to measles, 11 to diarrhœa, five to scarlet to fever, four to diphtheria, and four to "fever." In all, 67 deaths resulted from these principal zymotic diseases, against 64 and 99 in the two preceding weeks. These 67 deaths were equal to an annual rate of 2·2 per 1000, which was slightly above the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of whooping-cough, which had been 23 and 31 in the two preceding weeks, were 30 last week, of which 11 occurred in Glasgow, eight in Edinburgh, and seven in Leith. The 13 deaths from measles showed a decline of 20 from the number recorded in the preceding week and included seven in Aberdeen. The five fatal cases of scarlet fever corresponded with the number registered in each of the two preceding weeks and included two in Glasgow and two in Dundee. The deaths referred to different forms of "fever," which had been four and six in the two preceding weeks, declined again to four last week, of which three occurred in Glasgow. The deaths from diseases of the respiratory organs in these towns, which had been 233 and 213 in the two preceding weeks, further declined to 172 last week, and were 15 below the number in the corresponding period of last year. The causes of 33, or nearly 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased in the three preceding weeks from 27·3 to 31·9 per 1000, declined again to 28·5 during the week ending March 11th. During the past four weeks the rate of mortality in the city has averaged 29·5 per 1000, the rate during the same period being 21·3 in London and 24·9 in Edinburgh. The 191 deaths registered in Dublin during the week under notice showed a decline of 23 from the number in the preceding week, and included 14 which were referred to the principal zymotic diseases, against 12 and 17 in the two preceding weeks; of these, six resulted from "fever," five from whooping-cough, two from diarrhœa, and one from diphtheria, but not one either from small-pox, measles, or scarlet fever. These 14 deaths were equal to an annual rate of 2·1 per 1000, the zymotic death-rate during the same period being 1.8 in London and 2·3 in Edinburgh. The deaths referred to different forms of "fever" which had increased from two to six in the three preceding weeks were again six last week. The fatal cases of whooping-cough which had been two and five in the two preceding weeks were again five last week. The two deaths from diarrhœa also corresponded with the number recorded in the preceding week. The 191 deaths in Dublin last week included 31 of infants under one year of age and 55 of persons aged upwards of 60 years; the deaths of infants showed an increase, while those of elderly persons corresponded with the number recorded in the preceding week. Seven inquest cases and six deaths from violence were registered; and 66, or more than a third, of the deaths occurred in public institutions. The causes of 12, or more than 6 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING FEBRUARY, 1899.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality during February in each of the 43 sanitary areas of London. With regard to the notified cases of infectious diseases in the metropolis, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to 8·5 per 1000 of the population, estimated at 4,546,752 persons in the middle of this year. In the three preceding months the rates had been 10·8, 9·5, and 9·2 per 1000 respectively. The rates were considerably below the average in Kensington, Westminster, St. James Westminster, Marylebone, Hampstead, St. Martin-in-the-Fields, and Strand; while they showed the largest excess in Fulham, London City, St. Saviour Southwark, Rotherhithe, Woolwich, Lee, and Plumstead sanitary areas. No case of small-pox was notified in London during February, and only two cases of this disease were under treatment in the Metropolitan Asylums Hospitals at the end of last month. The prevalence of scarlet fever in London showed a slight decline from that recorded in the preceding month; among the various sanitary areas this disease showed the

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING FEBRUARY, 1899.

(Specially compiled for THE LANCET.)

SANITARY AREAS.	Estimated population in the middle of 1899.	NOTIFIED CASES OF INFECTIOUS DISEASE.											DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.											Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON	4,546,752	—	1283	991	3	279	5	23	380	—	2964	8·5	—	102	26	149	158	2	56	—	44	567	1·6	7086	20·3	129
West Districts.																										
Paddington	128,794	—	26	17	—	5	—	—	10	—	58	5·9	—	—	1	1	10	—	—	—	3	15	1·5	189	19·1	165
Kensington	172,899	—	20	27	—	5	—	—	18	—	70	5·3	—	—	—	8	11	—	—	—	—	19	1·4	245	18·5	156
Hammersmith	106,785	—	46	8	—	6	—	1	12	—	73	8·7	—	2	1	1	6	—	1	—	—	11	1·3	171	20·5	146
Fulham	130,720	—	69	50	—	7	—	3	13	—	142	14·2	—	1	4	10	1	—	2	—	3	21	2·1	166	16·6	107
Chelsea	96,721	—	30	28	—	3	—	—	2	—	63	8·5	—	1	—	2	10	—	1	—	1	15	2·0	162	21·8	153
St. George Hanover-square	80,876	—	25	7	—	2	—	—	3	—	37	6·0	—	—	—	—	2	—	2	—	—	4	0·6	106	17·1	94
Westminster	62,117	—	4	8	—	4	—	—	1	—	17	4·3	—	—	—	—	1	—	1	—	—	2	0·5	92	23·0	180
St. James Westminster	21,827	—	1	1	—	3	—	—	2	—	7	4·2	—	1	—	—	—	—	—	—	—	1	0·6	47	28·1	176
North Districts.																										
Marylebone	140,139	—	16	11	—	12	—	1	13	—	53	4·9	—	2	—	3	4	—	2	—	2	13	1·2	237	22·1	80
Hampstead	80,252	—	15	10	—	1	—	—	3	—	29	4·7	—	1	—	—	1	—	—	—	—	2	0·3	72	11·7	66
St. Pancras	244,548	—	46	32	—	9	—	—	25	—	112	6·0	—	17	2	3	12	—	5	—	1	40	2·1	397	21·2	135
Islington	348,085	—	117	33	—	10	1	1	19	—	181	6·8	—	14	2	4	17	—	2	—	2	41	1·5	533	20·0	113
Stoke Newington	35,187	—	11	3	—	2	—	—	1	—	17	6·3	—	—	1	—	—	—	—	—	—	1	0·4	22	8·1	29
Hackney	222,571	—	70	65	—	13	1	5	18	—	172	10·1	—	3	—	10	5	—	2	—	1	21	1·2	277	16·2	87
Central Districts.																										
St. Giles	37,196	—	6	5	—	2	—	—	3	—	16	5·6	—	1	—	—	—	—	2	—	—	3	1·1	58	20·3	40
St. Martin-in-the-Fields	12,142	—	3	—	—	1	—	—	—	—	4	4·3	—	—	—	—	—	—	—	—	1	1	1·1	12	12·9	200
Strand	23,016	—	2	1	—	—	—	—	—	—	3	1·7	—	—	—	—	—	—	—	—	—	—	—	50	28·3	146
Holborn	29,621	—	8	4	—	5	—	—	7	—	24	10·6	—	1	—	2	3	—	1	—	—	7	3·1	70	30·8	270
Clerkenwell	66,068	—	24	10	—	5	—	1	4	—	44	8·7	—	10	—	3	3	—	1	—	3	20	3·9	143	28·2	170
St. Luke	40,868	—	8	8	—	2	—	—	7	—	25	8·0	—	—	—	1	—	—	—	—	1	2	0·6	92	29·4	120
City of London	27,986	—	3	3	—	39	—	—	—	—	45	21·0	—	—	—	—	—	—	5	—	2	7	3·3	43	20·0	162
East Districts.																										
Shoreditch	121,071	—	13	13	—	8	—	1	13	—	48	5·2	—	5	—	2	4	—	2	—	1	14	1·5	227	24·4	161
Bethnal Green	128,938	—	26	30	—	5	—	2	22	—	85	8·6	—	10	1	3	—	—	2	—	2	18	1·8	221	22·3	118
Whitechapel	81,391	—	14	16	—	4	—	—	10	—	44	7·0	—	—	—	3	2	—	1	—	—	6	1·0	153	24·5	115
St. George-in-the-East	48,660	—	4	5	—	2	—	—	7	—	18	4·8	—	—	—	—	4	—	—	—	—	4	1·1	101	27·1	135
Limehouse	58,807	—	15	14	—	6	—	1	8	—	44	9·8	—	5	—	4	1	—	—	—	1	11	2·4	117	25·9	192
Mile End Old Town	113,161	—	27	21	—	8	—	2	10	—	68	7·8	—	3	—	5	2	—	3	—	—	13	1·5	190	21·9	166
Poplar	170,606	—	25	38	—	21	—	—	18	—	102	7·8	—	9	1	5	8	—	1	—	4	28	2·1	295	22·5	152
South Districts.																										
St. Saviour Southwark	24,207	—	5	16	—	2	—	—	1	—	24	12·9	—	1	—	4	1	—	—	—	—	6	3·2	49	26·4	183
St. George Southwark	60,536	—	8	35	1	7	—	—	3	—	54	11·6	—	1	1	10	7	—	—	—	—	19	4·1	153	32·9	180
Newington	124,166	—	20	59	—	3	—	—	9	—	91	9·6	—	3	—	10	21	—	—	—	—	37	3·9	234	24·6	153
St. Olave Southwark	11,098	—	4	1	—	1	—	—	—	—	6	7·1	—	—	—	—	—	—	—	—	1	1	1·2	25	29·4	138
Bermondsey	85,835	—	22	25	—	9	—	—	2	—	58	8·8	—	—	2	6	2	1	3	—	2	16	2·4	177	26·9	175
Rotherhithe	41,050	—	25	7	1	3	—	—	8	—	44	14·0	—	—	—	1	2	1	1	—	—	5	1·6	66	21·0	125
Lambeth	308,108	—	78	99	1	9	1	1	30	—	219	9·3	—	2	4	13	18	—	1	—	3	41	1·7	531	22·5	136
Battersea	174,996	—	46	86	—	7	—	—	14	—	153	11·4	—	—	—	9	1	—	2	—	3	15	1·1	221	16·5	122
Wandsworth	209,655	—	49	36	—	7	—	2	14	—	108	6·7	—	1	1	6	8	—	1	—	1	18	1·1	269	16·7	106
Camberwell	264,817	—	81	64	—	13	2	—	15	—	175	8·6	—	3	2	8	15	—	5	—	1	31	1·7	336	16·5	108
Greenwich	182,513	—	83	34	—	18	—	—	15	—	150	10·7	—	1	—	7	2	—	5	—	4	19	1·4	275	19·6	123
Lewisham (excluding Penge)	91,027	—	30	27	—	1	—	1	7	—	66	9·5	—	—	—	2	1	—	1	—	—	4	0·6	97	13·9	65
Woolwich	41,542	—	25	11	—	1	—	1	2	—	40	12·6	—	—	—	2	—	—	—	—	1	3	0·9	71	22·3	172
Lee	40,219	—	34	9	—	2	—	—	5	—	50	16·2	—	4	2	1	—	—	1	—	—	8	2·6	42	13·6	87
Plumstead	64,031	—	99	13	—	3	—	—	6	—	121	24·6	—	—	1	—	—	—	—	—	—	1	0·2	52	10·6	88
Port of London	—	—	—	1	—	3	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 34 cases of membranous croup.

† Including deaths from membranous croup.

highest proportional prevalence in Hammersmith, Fulham, Rotherhithe, Greenwich, Woolwich, Lee, and Plumstead. The Metropolitan Asylums Hospitals contained 2535 scarlet fever patients at the end of February, against 3090, 2883, and 2637 at the end of the three preceding months; the weekly admissions averaged 236, against 239 in each of the two preceding months. The prevalence of diphtheria in London during February differed but slightly from that recorded in the preceding month; this disease was proportionally most prevalent in Fulham, Chelsea, St. Saviour Southwark, St. George Southwark, Newington, Bermondsey, Battersea, and Lewisham sanitary areas. There were 1388 diphtheria patients under treatment in the Metropolitan Asylums Hospitals at the end of February, against 1269, 1239, and 1358 at the end of the three preceding months; the weekly admissions averaged 172, against 173 and 166 in the two preceding months. The prevalence of enteric fever in London showed a slight further decline from that recorded in recent months; among the various sanitary areas this disease showed the highest proportional prevalence in St. James Westminster, Holborn, London City, Limehouse, St. George Southwark, and Bermondsey. The Metropolitan Asylums Hospitals contained 215 enteric fever patients at the end of February, against 286, 255, and 249 at the end of the three preceding months; the weekly admissions averaged 27, against 45, 36, and 34 in the three preceding months. Erysipelas was proportionally most prevalent in Holborn, St. Luke, Bethnal Green, St. George-in-the-East, Limehouse, and Rotherhithe sanitary areas. The 23 cases of puerperal fever notified in London during February included five in Hackney, three in Fulham, and two each in Bethnal Green, Mile-End-Old-Town, and Wandsworth sanitary areas.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various sanitary areas of the metropolis, the deaths occurring in the institutions of London having been distributed among the various sanitary areas in which the patients had previously resided. During the four weeks ending Saturday, Feb. 25th, the deaths of 7086 persons belonging to London were registered, equal to an annual rate of 20·3 per 1000, against 16·3, 16·9, and 17·0 in the three preceding months. The lowest death-rates in the various sanitary areas were 8·1 in Stoke Newington, 10·6 in Plumstead, 11·7 in Hampstead, 12·9 in St. Martin-in-the-Fields, 13·6 in Lee, and 13·9 in Lewisham (excluding Penge); the highest rates were 27·1 in St. George-in-the-East, 28·1 in St. James Westminster, 28·2 in Clerkenwell, 28·3 in Strand, 29·4 in St. Luke and St. Olave Southwark, 30·8 in Holborn, and 32·9 in St. George Southwark. During the four weeks of February 567 deaths were referred to the principal zymotic diseases in London; of these, 102 resulted from measles, 26 from scarlet fever, 149 from diphtheria, 183 from whooping-cough, 2 from typhus fever, 56 from enteric fever, and 44 from diarrhœa, but not one either from small-pox or from any ill-defined form of continued fever. These 567 deaths were equal to an annual rate of 1·6 per 1000, against 1·7 and 1·5 in the two preceding months. No death from any of these zymotic diseases was recorded last month in Strand sanitary area; in the other sanitary areas they caused the lowest death-rates in Westminster, Hampstead, Stoke Newington, and Plumstead; and the highest rates in Holborn, Clerkenwell, London City, Limehouse, St. Saviour Southwark, St. George Southwark, Newington, Bermondsey, and Lee. The 102 fatal cases of measles were 69 below the corrected average number in the corresponding periods of the 10 preceding years; this disease showed the highest proportional fatality in St. Pancras, Clerkenwell, Bethnal Green, Limehouse, and Lee sanitary areas. The 26 deaths referred to scarlet fever were less than half the corrected average number; among the various sanitary areas this disease was proportionally most fatal in Fulham and Lee. The 149 fatal cases of diphtheria were 18 below the corrected average number; this disease showed the highest proportional fatality in Kensington, Fulham, Hackney, Holborn, Limehouse, St. Saviour Southwark, St. George Southwark, Newington, and Bermondsey sanitary areas. The 183 deaths from whooping-cough were 65 below the corrected average number; among the various sanitary areas this disease was proportionally most fatal in Paddington, Chelsea, Holborn, St. George-in-the-East, St. George Southwark, and Newington. Of the two fatal cases of typhus fever one belonged to Bermondsey and one to Rotherhithe sanitary areas. The 56 deaths from enteric fever were 25 below the corrected average number; this disease showed the highest proportional fatality in St. Giles and Bermondsey sanitary areas. The 44 fatal cases of diarrhœa were 11 below the average. In conclusion, it may be stated that the aggregate mortality in London last month from these principal zymotic diseases was nearly 24 per cent. below the average.

Infant mortality in London during February, measured by the proportion of deaths of children under one year of age to registered births, was equal to 129 per 1000. Among the various sanitary areas the lowest rates of infant mortality were recorded in Hampstead, Stoke Newington, Hackney, St. Giles, Lewisham, and Lee; and the highest rates in Westminster, St. Martin-in-the-Fields, Holborn, Limehouse, St. Saviour Southwark, and St. George Southwark.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following appointments are announced:—Staff Surgeons: C. W. Sharples to the *Monarch*, for Ascension Hospital; H. Holyoake to the *Australia*; W. M. Craig to Plymouth Hospital; A. S. Nance to the *Galatea*; H. F. Iliewicz to the *Pembroke*; and G. T. Collingwood to the *Hotspur*. Surgeons: M. J. O'Regan to Bermuda Hospital; S. Roach to the *Alert*; E. Arkwright to the *Renown*, for the *Columbine*; E. Folliott to the *Eclipse*, for disposal; B. Ley to the *Assaye*; W. S. H. Sequeira to the *Lapwing*; H. A. Julius to the *Sphinx*; J. H. Acheson to the *Victory*, for disposal; W. H. O. Garde to the *Victory*, for the *Research*; J. G. Watt to the *Wildfire*, for the *Triton*; J. H. Pead to the Royal Marine Artillery, Eastney; O. Rees to the *Wildfire*, for the Depôt, Walmer; A. G. Eastment to the *Jason*; F. Bradshaw to the *Howe*; and F. D. Lumley to Haulbowline Hospital.

ROYAL ARMY MEDICAL CORPS.

Lieutenant-Colonel R. Drury and Captain D. J. Collins have been granted six months' leave out of India on medical certificate. Colonel E. Townsend has been granted leave from India to England for eight months. Major Butt will shortly embark for service in India. Captain C. B. Lawson is posted to the Western Heights, Dover, for duty. Major Henry J. McLaughlin, from half-pay, to be Major, with precedence next below D. F. Franklin, vice J. R. Barefoot, deceased.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant H. C. Reid to be Surgeon-Captain.

MILITIA MEDICAL STAFF CORPS.

Surgeon-Captain T. W. Richardson to be Surgeon-Major; Surgeon-Major T. W. Richardson resigns his commission; also is permitted to retain his rank, and to wear the prescribed uniform on his retirement. Supernumerary Surgeon-Lieutenant S. Oliver to be Surgeon-Lieutenant within the establishment.

VOLUNTEER CORPS.

Artillery: 1st Argyll and Bute: Surgeon-Lieutenant D. J. Penney to be Surgeon-Captain. *Rifle:* 1st Volunteer Battalion the Royal Welsh Fusiliers: Surgeon-Lieutenant T. G. Jenkins resigns his commission. 1st Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment): Surgeon-Lieutenant R. A. Johnston to be Surgeon-Captain. 1st (Renfrewshire) Volunteer Battalion, Princess Louise's (Argyll and Sutherland Highlanders): Surgeon-Lieutenant A. Leitch to be Surgeon-Captain. 1st Dumbartonshire: James Reid Foulds to be Surgeon-Lieutenant.

THE ARMY ESTIMATES DEBATE.

In the discussions which have been taking place in the House of Commons on going into Committee of Supply on the Army Estimates attention has been directed to the deplorable falling off in the physique of the general population revealed by the returns for recruiting. Among the indications of the lowered health and physique of that portion of the population from which army recruits are mainly drawn Mr. Wyndham in his speech on the Army Estimates referred to the number of would-be recruits who were rejected on the ground of bad teeth and suggested that in elementary schools supported by public funds it might be possible to teach the pupils to take elementary precautions for the preservation of their teeth. Without entering upon the causes

of dental decay so common among all classes of society we may say that there is much to be commended in Mr. Wyndham's suggestion and in those set forth in a communication to the *Times* of March 6th from the President of the School Dentists' Society bearing upon the same subject. Some system might be organised for the periodical inspection of school-children and for the provision of the necessary skilled treatment by the appointment of dental surgeons to carry it out.

THE PHYSIQUE OF CANDIDATES FOR ARMY COMMISSIONS.

We have frequently advocated the introduction of some system by which candidates for army commissions should score something for their physical as well as their mental qualifications and that a competitive examination should be competitive all round. A young fellow of fine physique, sound in all respects and in perfect health, bringing with him the reputation of a good athlete from his school—the very type of youth to make an officer—derives no advantage from the possession of these physical qualities. He has often to give place to some hard-working youth who has beaten him at the competitive examination, provided the latter subsequently manages to succeed in satisfying the medical board as to his physical fitness. The giving of marks for a high standard of physical fitness may no doubt be attended with some practical difficulties, but the attempt should, in our opinion, nevertheless be made. A good many really desirable young fellows are lost to the service in favour of less manly and desirable candidates whose great qualification is that they can "work up" all day long and every day for an examination.

THE LEGION OF HONOUR.

By virtue of a decree which was published on Dec. 30th, 1898, 12 medical officers of the French navy have been made members of the National Order of the Legion of Honour in recognition of their good service. The majority of these gentlemen were granted the distinction on general grounds, but two of them received the cross for distinguished conduct in the field, their respective achievements being recorded as follows: "M. Bastier (F.E.), surgeon of the first class, two war campaigns. Has given proof of much coolness and energy in several affairs during the Betsiriry and Menabé rebellion, especially on June 7th and July 22nd, 1898. Showed no hesitation whatever in keeping well to the front during a heavy fire from the enemy so as to be able to attend to the wounded. M. Brugère (M.J.P.L.), surgeon of the second class, attached to the Sikasso column (Soudan, 1898). Rendered the utmost service by his absolute devotion to the sick and wounded; by his coolness and bravery under fire from the enemy."

THE NAVY ESTIMATES.

The coming financial year promises to be one of great activity in the Royal Navy. The net total of the estimates for 1899–1900 is £26,594,500, while that of last year was £23,778,400, an increase of £2,816,100. Exclusive of victualling and clothing, the note for pay, retired pay, and gratuities shows an increase of £462,000, the total being £7,474,000. It is interesting to observe that there is a proposal to increase the number of men and boys by 4250. This will bring the *personnel* up to 110,640. The vote for medical establishments and services amounts to £176,600, as against £167,000 last year, an increase of £9600.

THE WANT OF A HOSPITAL SHIP FOR THE SOUDAN CAMPAIGN.

Our Service contemporary, the *Army and Navy Gazette*, referring to this subject, says that the Under-Secretary for War has been so steadily adding to his reputation in the debates on the Army Estimates and on the larger questions of military policy and organisation that it is to be regretted that he did not admit that it was a mistake not to have supplied a hospital ship for the last Soudan campaign. The omission, we may be sure, is not likely to occur again.

RECRUITING.

Under the new scheme for the decentralisation of recruiting arrangements which has been approved by the Secretary of State for War, general officers commanding districts will be held responsible for all recruiting arrangements, financial or otherwise, within their respective commands. This seems to be in principle a sound and common-sense measure.

HOW TO JOIN THE ROYAL NAVY.

The officials of the Naval Recruiting Service have prepared a pamphlet for the information of inquirers as to the mode of procedure in getting lads into the Navy for all ratings. The advantages of service in the Royal Navy are clearly set forth and information is given as to physical tests, qualifications, pay, &c.

AMERICA AND THE LATE WAR.

The reports submitted to the Adjutant-General show that between May 1st, 1898, and Feb. 18th of this year 329 men of the American troops were killed in action, 125 died from their wounds, and 5277 died from disease in Cuba, Puerto Rico, and the Philippines.

Correspondence.

"Audi alteram partem."

"THE PREVENTION OF PHTHISIS AND NOTIFICATION."

To the Editors of THE LANCET.

SIRS,—We are much indebted to Dr. Lionel Beale for his sagacious letter in THE LANCET of March 11th. With its main contention most of us will probably agree. May I be permitted to say that a somewhat long consideration of the question of the prevention of human tuberculosis leads me to the conclusion that legislation for such prevention is not desirable? Such a view seems likely to be the general decision of our profession upon this difficult subject. At the recent meeting which was called by the Prince of Wales at Marlborough House there was a complete agreement amongst the speakers as to the causal conditions of tuberculosis and as to the pressing need for general and united action to reduce the spread of the disease. Perhaps I was the only speaker on that occasion who broached the question of especial legislation against tuberculosis. I pointed out that effective preventive results were promised by the generous lead and influence of the medical profession and by public and popular knowledge and appreciation of the facts of the case rather than by legislative enactment. The Prime Minister, touching upon this point, emphatically observed that, in his own view, it is the public only who can effect changes for the better in such a matter and that it is only by public knowledge that any real good can be done in the arrest of tuberculosis. From Lord Salisbury's statements we may learn that our existing Government, as it is at present informed, is not likely to move in the matter, excepting in the direction of diffusing information, as through the Board of Agriculture or in other ways. Nor does it seem advisable that the medical profession should urge any other view upon the legislature. With our advanced and advancing knowledge as to the causation, spread, and prevention of tuberculosis our own conscience as to our duty is fully awakened. The public conscience will inevitably follow our own. Surely by keeping the public running with us as to the teachings of our science and the practice of our art as to "the national scourge" we can accomplish all we wish for safely, quickly, and not unpleasantly, without the precarious assistance of legislative interference and restrictions. The interchange of tuberculosis between bovine animals and man is rapidly becoming a part of general knowledge, and the ordinary economic and commercial forces springing from such knowledge are issuing in the wisdom of efficient prophylactic measures and results. Each medical man will know best how to render harmless any case of tuberculosis under his care. We are finding that tuberculous patients are willing to carry out precautions as to infection from themselves, especially when they apprehend that their own prospects are improved by such procedures. Apart from my practice I have had some intimate association with agriculturists and I have found them to be generally ready to give all the aid which can be expected from them in arresting the spread of tuberculous infection. The National Society for the Prevention of Tuberculosis is doing good work.

I am, Sirs, yours faithfully,

Birmingham, March 13th, 1899. JAMES SAWYER

QUININE AND MALARIA.

To the Editors of THE LANCET.

SIRS,—Professor Koch's statement "that the treatment of blackwater fever with quinine must absolutely cease" which in this out-of-the-way region has only just reached me, leads me to write a protest fearing that such a statement from a man in his position may lead to very disastrous results. After more than eight years' experience in Central Africa I feel perfectly sure that if quinine is not used in these severe cases the death-rate will increase to an enormous extent.

In 1889, when I first came to this country, I was horrified at the excessive doses of quinine which were taken by traders and I treated my first severe cases of fever with comparatively small doses, not more than 15 grains a day. Being dissatisfied with the results I treated three severe cases with 10 grains every four hours, one of them taking 180 grains in three days. In none of these did hæmoglobinuria appear and they all recovered, but I decided no longer to give such large doses and since then I have never given more than 30 grains during the first 24 hours and not more than 15 grains daily until the fever ceases, when five grains only are taken for a few days. Two things I consider very important in the administration of quinine. First, not to give it without an aperient combined with calomel. Secondly, not to give it when the temperature is rising or is above 102° F. It must only be given when the temperature is falling or is below 102° F. In several cases latterly I have tried giving smaller doses, but in the end I have had to return to the larger doses before the fever would break. Professor Koch suggests some other remedy instead of quinine. The only other remedy to which I have given a fair trial is arsenic and this I find useless except as a tonic. To give up quinine in our hæmoglobinuric fevers would, I consider, take away from patients their best chance of recovery. Quinine may cause hæmoglobinuria in some cases, but I have never seen a case and I think they must be very rare.

In THE LANCET of Jan. 16th, 1897, you kindly inserted a letter from me on the malarial parasite. In it I mentioned my discovery of an unpigmented parasite in all our varieties of malarial fever. That these parasites very rapidly destroy the corpuscles which they attack is very evident in the anæmia which so quickly appears in our African fevers. What becomes of the hæmoglobin? It is not converted into pigment which is evident from the fact that the parasite is non-pigmented; also there is no melanæmia. The first severe fever which a European has is generally of the bilious remittent type. What causes the excessive jaundice so characteristic of these fevers? I look upon it as the result of free hæmoglobin in the plasma of the blood which the liver is doing its best to remove. If the patient recovers, his second or third severe attack of fever will still be bilious but the jaundice not so marked, but hæmoglobinuria will also be present. Why? My explanation is that the liver, weakened by former fevers, is not able to meet the demand made upon its secretory powers and as free hæmoglobin in the plasma must be a powerful poison the kidneys do their best to remove it.

I am, Sirs, yours faithfully,

WALTER FISHER, M.R.C.S. Eng., L.R.C.P. Lond.

Nana Candundu, Lovale Country, Dec. 12th, 1898.

"INTRAVENOUS INJECTIONS IN SYPHILIS."

To the Editors of THE LANCET.

SIRS,—I have read with pleasure the letter from Dr. C. F. Marshall upon the above subject in THE LANCET of March 4th. I should like to make one or two remarks. Dr. Marshall says: 1. "Daily injection is irksome and inconvenient both to the patient and operator." I did not find this so when house surgeon at the London Male Lock Hospital, but it might be considered a disadvantage in general practice. 2. "The quantity of mercury administered is not the point but the effect produced on the patient." Since we are only able to judge of effect by quantity administered I must say that I think it is very important to know if possible the exact quantity of mercury introduced into the circulation. Then we can regulate the effect by increasing or diminishing the quantity given. This can be done when mercury is employed by means of the intravenous injection but not when pills are given as we cannot be certain of the quantity of the drug absorbed. Dr. Marshall also says that the average time for symptoms of primary and secondary cases to disappear under treatment by pills is 21 days. From my own experience, having seen a great number of cases in the in- and out-patient departments of the London Male Lock Hospital, I should put it at a much longer time. The average duration of symptoms in my cases was 23 days. All the cases I quoted were treated as in-patients and were of the worst type of the disease, as on account of the limited number of beds only the worst cases were admitted to the wards. I cannot think that 21 days would have been the average duration of the symptoms of these cases had they been treated by pills.

I am, Sirs, yours faithfully,

Colchester, March 8th, 1899. ARTHUR CHOPPING.

"HUNTER *v.* CLARE."

To the Editors of THE LANCET.

SIRS,—Mrs. Kingsley Hunter's letter in your last issue cannot fail to put a very strong complexion on the origin of the "Hunter case." One thing, however, is clear. There can be no doubt that a brother practitioner has been very hardly dealt with. Whether the prosecution directed against him by the Council was justifiable or not remains to be seen, but that it was a grave mistake few will deny. The widow states that it killed her husband, and whether this be the fact or not there is no gainsaying that it ruined his practice and left her destitute. Under these circumstances I think that steps should be taken to assist the widow of one of our brethren who for no fault of his own was made to appear like a quack in the eyes of the public and had his young life brought to such an unhappy close.

I should be glad to subscribe to any fund that might be organised for Mrs. Kingsley Hunter's benefit.

I am, Sirs, yours faithfully,

MAJOR GREENWOOD, M.D. Brux., LL.B. Lond.

Hackney-road, N.E., March 12th, 1899.

"THE STYLE OF PHYSICIAN."

To the Editors of THE LANCET.

SIRS,—I see that my letter in THE LANCET of Feb. 4th has stirred up a spirit of inquiry. It appeared to me that the ruling of the Appeal judges was that the corporations gave specific titles. That being so the Apothecaries' Society would give the legal title of "apothecary." The "physician" is a person who practises "physic" or "medicine" by the administration of internal remedies for internal diseases, as distinguished from the "surgeon" who is the hand-worker and operator concerned with diseases which are capable of manipulative treatment. The "apothecary" is licensed to deal with disease which can be treated by drugs and also to charge for medicine supplied. I believe it is only since the failure of negotiations for amalgamation that the Hall has commenced to examine in surgery on the strength of some clause in its charter which had not previously been taken advantage of. The cardinal distinction appears to be the power to sell drugs, and I believe this power is exercised by the Hall itself. A physician may administer drugs to his patient but can make no legal charge for the medicines. It is certainly anomalous that "surgeon" alone should signify a general practitioner, but "surgeon-apothecary" might possibly be a fairly descriptive title. I will, however, suggest that the title "doctor" with qualification affixed is the most likely one to convey a general impression of the position of the L.S.A. who does not charge for drugs, while one who does so ought to content himself as "surgeon-apothecary and accoucheur."

I am, Sirs, yours faithfully,

Loughborough, March 8th, 1899. J. B. PIKE.

STOMATITIS IN MYXŒDEMA.

To the Editors of THE LANCET.

SIRS,—In connexion with the case of acute œdema of parts within the mouth in the course of myxœdema published in THE LANCET of Feb. 4th, 1899, it may be interesting to notice a case which appeared in the *Berliner Klinische Wochenschrift* for 1887, p. 400, entitled "Ein Fall von Myxœdem mit starker Stomatitis und Hepatitis Interstitialis." In the latter the patient, a man 64 years of age, was admitted into the Charity Hospital of Posen under the care of Dr. Zielewicz, with great swelling of the face and

neck, the latter being about twice its usual circumference, which had commenced only six months before although there was a history of long previous illness. It is mentioned as a striking feature in the case that it was complicated with stomatitis and copious salivation, against which all therapeutic means proved unavailing. The entire mucous membrane of the lips and mouth was red and swollen with numerous and ever-extending erosions and the inflammation ultimately invaded the pharynx and parts beyond. The patient hawked incessantly, but could not expectorate the accumulating secretion and he died from suffocation, the trachea and bronchi being found post mortem to be filled up with tough mucus. The case was during life regarded as one of elephantiasis and it was not until an article by Virchow on Myxœdema was published in the *Wochenschrift* of the same year, in which this case is recorded (p. 120) that Dr. Zielewicz recognised that he had had an example of the latter under observation.

I am, Sirs, yours faithfully,

Glasgow, March 6th, 1899. ROBERT KIRK, M.D. Edin.

"A CASE OF VOMITING LARGE MASSES OF CANCEROUS MATTER."

To the Editors of THE LANCET.

SIRS,—As you mentioned in one of your annotations in your issue of March 11th the case of vomiting cancerous matter published in THE LANCET of Oct. 3rd, 1896, I was induced to call at the patient's house to see if the patient was still in the land of the living and I was glad to find him this noonday engaged in eating and enjoying a good substantial dinner of meat and vegetables. He suffers occasionally from flatulent indigestion and about seven weeks ago he vomited some blood, but in other respects he feels very well. The blood came up so easily he does not think there was any cancerous matter in it; besides, at the time when the vomiting took place he was at work, and he says he was in his usual working health.

I am, Sirs, yours faithfully,

Lincoln, March 13th, 1899. WILLIAM O'NEILL, M.D. Aberd.

"INSTRUCTION IN ANÆSTHETICS."

To the Editors of THE LANCET.

SIRS,—I should like to be permitted to thank Dr. White for his letter on the above subject in THE LANCET of Feb. 18th. His views on the matter entirely coincide with those which I have long held and which I expressed in detail in a paper read before the Thames Valley Branch of the British Medical Association on March 16th, 1892, and published in THE LANCET of May 28th of the same year. Since the publication of that paper I have been personally responsible for the introduction of systematic instruction in anæsthetics on the lines advocated in three of the London medical schools (Guy's, King's, and the Royal Free) and I have every reason to believe that the teaching has much improved at other places. At Guy's especially the teaching is particularly thorough and comprehensive, for I was able to take advantage of the coexistence of the Guy's Hospital Dental School to afford the student instruction in the administration of anæsthetics for dental purposes as well as for surgical cases. So far, however, but little if any success has attended the attempt to induce the General Medical Council or the examining bodies to make instruction in the subject compulsory. In my humble opinion, and apparently in the opinion of Dr. White, the matter is as well worthy of attention as the abstruse and difficult art of vaccination which is still a subject of special enactment.

I am, Sirs, yours faithfully,

Devonshire-street, W., March 13th, 1899. J. F. W. SILK.

THE NORWICH MEDICO-CHIRURGICAL SOCIETY AND THE NEW VACCINATION ACT.

To the Editors of THE LANCET.

SIRS,—At an ordinary meeting on March 7th of the above society the following resolution forwarded for consideration by the honorary secretary of the Liverpool Medical Institution was endorsed by the Norwich Medico-Chirurgical Society—viz.: "That the members of the Liverpool Medical Institution are of opinion that the Vaccination Act, 1898, was enacted in direct opposition to the findings of the Royal Commission and that the operation of the Act will be prejudicial to the public safety and that its amendment is urgently required." It was also resolved to send a copy of this resolution to the Members of Parliament for this city and the county of Norfolk.

I am, Sirs, yours faithfully,

Norwich, March 11th, 1899. H. C. NANCE, Hon. Sec.

THE GENERAL MEDICAL COUNCIL AND THE MIDWIVES QUESTION.

To the Editors of THE LANCET.

SIRS,—In a leading article in THE LANCET of March 11th I note a statement to the effect that the General Medical Council had postponed the consideration of the question of the subject of granting illegal certificates of proficiency in medicine, surgery, and midwifery. The profession has always suffered from this fatal fault of procrastination on the part of its governing authorities with the result in this case of the country being flooded with all sorts of persons, male and female, who practise small portions of the profession of medicine. These persons are possessed of certificates signed in some cases by members of the profession and in others signed by persons other than those on the Register of medical practitioners.

It is quite clear that the General Medical Council can deal with those members of the profession who sign certificates which are used for the purposes of medical practice and it is their duty to do so. No doubt the certificates are often granted in the first instance for legitimate purposes, but in too many cases the certificates are used for purposes which the signatories did not originally intend. The practical point which I wish to urge is this—that the General Medical Council should issue a notice to the medical profession that in future it will hold the signatories of such documents responsible for the misuse of certificates of proficiency signed by them or issued by their authority. If the Council will take some such step as this we shall, I am confident, see an end of the nurse, the midwife, the masseuse, the oculist, *et hoc genus omne*, as practitioners of medicine. The fault lies at the door of the profession and not at that of the community. It is amusing to contrast the stringency with which penal enactments are enforced against the little men of the profession who are not allowed representation except in a most limited manner and the leniency with which the men who are in touch with the great corporations are treated, and it will be a comfort to see a little reform in the central machinery which is the real spot to be touched.

I am, Sirs, your obedient servant,

Hatfield, Herts, March 12th, 1899. LOVELL DRAGE.

"DIFFICULTIES UNDER THE NEW VACCINATION ACT."

To the Editors of THE LANCET.

SIRS,—I think it is the duty of the family medical practitioner to attend to the vaccination of his patients and many men after returning from a confinement make a practice of entering the infant's name for vaccination purposes in their visiting lists which also generally contain some special columns for that purpose. Surely it is not touting to care for and visit one's own patients when necessary. In matters of medical interest I question if it is not always the duty of the family practitioner to try to safeguard his patient and it is by no means the rule to act as "General Practitioner" thinks. As regards your correspondent's letter signed "P. P.," if your readers will kindly refer to THE LANCET of March 4th they will see that I am misquoted.

I am, Sirs, yours faithfully,

March 12th, 1899. FAIRPLAY.

To the Editors of THE LANCET.

SIRS,—May I point out that in Form H the name and address of the child only is given and when we proceed to send out Form I we do not know to whom to address it?

In a country parish where many different families of the same name reside and in which the only address can be the

name of the parish, the houses being unnumbered, I fail to see how the notice can be delivered to the right person. Form H ought to have a column with the name of the parent or guardian of the child to whom the notice could be sent.

I am, Sirs, yours faithfully,

T. WOODS,
Public Vaccinator.

Gillingham, Dorset.

P.S.—It may be useful to many of your readers to know that the vaccine lymph from a capillary tube can be easily and safely ejected upon the point of the lancet or other instrument by breaking off one end and holding the other in the flame of a spirit lamp, thus doing away with the "lymph ejector."

SALIPYRIN IN INFLUENZA.

To the Editors of THE LANCET.

SIRS,—As far as I can gather this drug appears to be but little known and less used in this country. In Germany its specific action in influenza has already been widely recognised. During the present epidemic I have used salipyrin very largely and my experience has been such that I think a therapeutic note is justified in THE LANCET. Given in a mild case early enough the disease is cut short in a few hours; in what would be a severe case the pain is quickly removed, the temperature falls gradually, and, what is most important, there is no collapse, depression, or cardiac weakness from the action of the drug. Salipyrin is a salicylate of antipyrin and is supposed to break up in the alimentary canal into salicylic acid and antipyrin. It does not appear, however, that the depressing effects of antipyrin are manifested where salipyrin is used; the action seems to be chiefly antiseptic and anti-malarial. I have given it in three-grain tabloids, from three to six grains every three hours, according to the severity of the case.

I am, Sirs, yours faithfully,

A. BUTLER HARRIS, M.A., M.B., B.Ch. Oxon.

Loughton, Essex, March 13th, 1899.

THE MIDWIVES' INSTITUTE AND THE BILL FOR THE REGISTRATION OF MIDWIVES.

To the Editors of THE LANCET.

SIRS,—The enclosed letter is being laid before the Midwives Bill Committee by the Incorporated Midwives' Institute.

I am, Sirs, yours faithfully,

ROSALIND PAGET.

12, Buckingham-street, Strand, W.C., March 14th, 1899.

[INCLOSURE.]

12, Buckingham-street, W.C., March 14th, 1899.

To the Chairman of the Midwives Bill Committee.

SIR,—The Council of the Incorporated Midwives' Institute, after a conference with their members, have requested me as their representative to lay before your committee their views on the present Bill.

The Council of the Incorporated Midwives' Institute consider this Bill inferior to that of last year, but they are, however, so strongly impressed with the urgent need for legislation that they will offer no opposition to the present Bill so long as the following points are insisted on.

1. That the final decision in all cases be in the hands of the central authority (see clause 9, Duties of Supervising Authority, and clause 10, Annual and Local Certificate). They consider with regard to clause 10 that their interests are not sufficiently safeguarded.

2. That their representation on the central board is retained and that an amendment is asked for—"that the nominees of the Privy Council should be two lay persons, one a woman."

3. That the certificate of the London Obstetrical Society be retained as a qualification for licence.

Your committee will doubtless consider that these three points are some of them already dealt with in the Bill and that the others will follow as a natural sequence. The reason the council of the Institute have called your attention to them is because of the amendments to this Bill that have appeared in the *British Medical Journal*, and which will doubtless be largely supported by the medical profession.

The Council of the Incorporated Midwives' Institute consider the machinery of the new clauses to be so complicated that they will prove unworkable and provide only a "nominal" protection to the mother, and the "pretence" of a monopoly of practice to the licensed midwife. They consider the unconscientious midwife will have every opportunity of evading the law, while the conscientious midwife is controlled at every turn and might possibly fall a victim to local jealousy owing to the preponderance of medical representation on the Midwives Board. A further danger is created by the uncertainty regarding the official position of the person to be appointed as local supervising authority.

I remain, Sir, your obedient servant,

ROSALIND PAGET
Honorary Treasurer, Midwives' Institute, and Representative on the Midwives Bill Committee.

STOCKPORT CENTRE, ST. JOHN AMBULANCE ASSOCIATION.

To the Editors of THE LANCET.

SIRS,—Referring to the recent public meeting of the above centre and on the strength of a garbled and one-sided account thereof in the *Stockport Advertiser*, you have seen fit in your issue of 18th inst. to direct certain strictures against members of the profession which you specially represent. In reliance upon your adherence to your motto "*Audi alteram partem*" copies of other newspaper reports are enclosed for your information, together with certain correspondence which may enlighten you as to the true facts. Your inference that it was insinuated that the local secretary of the St. John Ambulance Association was making a profit out of the association merely shows that the proverbial red herring has been drawn across the track. His discourteous attitude towards some members of the medical profession and others interested in ambulance work is the real cause of the present dissatisfaction. *Not only was no insinuation of dishonesty made but the suggestion was repeatedly repudiated.*

Your remark that a public meeting is not the best place for inquiry into such matters represents the view taken by the Medical Society who decided that the local St. John secretary was not to be attacked unless he first assailed the Medical Society or one of its members. This he at once did and was attacked in turn.

I accept the entire responsibility for the statements in this letter, which I request you to publish in fairness to the medical men concerned.

I am, Sirs, yours faithfully,

C. PORTER.

Victoria-park, Stockport, Feb. 26th, 1899.

"THE TALLERMAN TREATMENT AND ITS COUNTERFEITS."

To the Editors of THE LANCET.

SIRS,—Will you allow me to correct an impression that has been formed through the misleading statements in the press that the Tallerman apparatus is heated by gas only? That apparatus is heated equally well with any heating agent—electricity, gas, or oil—and can therefore be taken anywhere and used with any heating agent available. The first two are in use at the company's institute at Welbeck-street. The Greville electric apparatus is, in which view I am supported by two well-known medical men, the same as an old electric heating apparatus that has been standing in this institute for over three years and was originally surrendered to this company as an imitation by a medical man who accompanied the surrender with a letter binding himself not to infringe the company's rights in a similar manner again.

The introduction by members of the medical profession of this apparatus and others of a similar nature in order to counterfeit the Tallerman treatment by the local application of dry air heated to high temperatures is, having regard to all the circumstances, indefensible, whilst the attempt to deprive me of the credit of inventing this new treatment by writing about the Greville "system" and "method" is an attempt to justify a line of action which, to my way of thinking, is neither in accordance with professional ethics nor in the interests of the profession.

I am, Sirs, yours faithfully,

LEWIS A. TALLERMAN.

Welbeck-street, Cavendish-square, W.,
March 13th, 1899.

ASSAULT ON A PUBLIC VACCINATOR AT YEOVIL.—At the Borough Petty Sessions held at Yeovil on March 7th a school attendance officer was charged with assaulting Mr. C. J. Marsh, M.R.C.S. Eng., L.R.C.P. Edin., public vaccinator for the Yeovil Union. Evidence showed that Mr. Marsh called upon defendant in reference to the vaccination of his child and asked him whether he would have it vaccinated or not. The defendant declined to answer the question and became abusive to Mr. Marsh and finally told him to go down the steps, pushing him on the shoulder. The bench of magistrates unanimously fined the defendant 5*s*.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Plague Commission: Voluminous and Important Evidence.—Curative Serum.

THE Plague Commission has been sitting in Bombay and has examined a large number of witnesses.

Mr. R. B. Stewart, I.C.S., Secretary to Government, quoted his experiences in the Mofussil. In the efficacy of evacuation he fully believed and would resort to wholesale evacuations whenever possible. As to the method of importation his experiences led him to believe that it occurred by human agency and that it apparently took some days for a house to become infected, so that if the sickness was promptly reported and steps taken at once the inmates other than the first one attacked probably escaped.

Lieutenant-Colonel Waters, I.M.S., associated the origin of plague with the system of protracted storage of grain. He did not believe that the plague spread to any appreciable extent by communication from person to person. He believed that damp favoured the spread of the disease.

Major Grayfoot, I.M.S., drew the attention of the Commission to (1) the slowness of the movement of plague from place to place; (2) the difference in the time it took for general infection in different places; (3) the fact that many places had escaped general infection though partially infected; and (4) that an outbreak of plague has generally been preceded by a high mortality.

Mr. Shikare, L.M. & S., argued that plague was not imported from endemic areas, as Kumaon and Garhwal, where no recent epidemic occurred and where there was no direct communication, the pilgrims from these areas generally travelling on foot from place to place and taking a long time to reach Bombay—longer than the incubation period of the disease. No outbreak occurred at other places which they visited. He referred to the fact that in one of the large segregation camps although plague occurred the infection never caught hold. No case had had its origin from the camp because (1) though the place was infested with rats they continued healthy, not a single dead rat having been found; (2) the staff of camp servants and relatives who were resident in the camp enjoyed complete immunity from plague; and (3) the number of cases which developed was greatest on the day of admission and fell rapidly from the third day. He believed that the poison generally entered by a process of inoculation—viz., by means of small wounds and abrasions. He argued that the habit of walking barefooted explained the predominance of buboes in the groin as in infants and children the buboes were generally cervical.

Dr. Mayr, of the Austrian Mission, quoted two cases to show the value of Lustig's curative serum.

Captain Milne, Assistant to M. Haffkine, read a statement in which rules for sterilising the culture flasks were submitted. Rules for decanting the culture flasks were also submitted and the process of testing the fluid after sterilisation was explained. From his experience he found that plague germs disappeared in rats after several hours.

Dr. Thomas Blaney, C.I E., first referred to the early outbreak in the district of Mandvie and to the early discovery of large numbers of dead rats. He showed that although the district was equally affected in the second outbreak the mortality amongst the rats was not nearly so marked. This difference applied also to other portions of the city. He urged that the evidence went to show that rats were not the chief agents in spreading and maintaining plague. He pointed out that the outlying suburban districts of Bombay suffered in proportion to their population much more severely than the crowded portions of the city. He also referred to the great immunity of the crews of ships lying in the docks. Dr. Blaney made a minute comparison of the two epidemics and showed how they resembled each other in the periods of onset, their course and progress, the periods of abatement, and in their mortality. He believed that a study of these periods showed (1) the time when repressive measures might possibly be justifiable and more or less successful; (2) the time when all hope of check might be relinquished; (3) the period when steady decline showed that special rules or interference were useless and unnecessary; and (4) the period of lowest mortality when no repressive measures were called for. He said: "I have seen various repressive and suppressive measures fully tried in Bombay and have been unable to discover that any of those measures save and except the measure of separating the people from the plague poison have diminished, controlled, or extinguished the disease during any period of its activity." He thought that the best way of fighting the plague was to run away from it. He condemned particularly the removal of the sick while the healthy were allowed to remain in the infected houses. "As long as the houses remain infecting centres so long will fresh cases be discovered." He also showed how little evidence there was with regard to the spread of the infection from one person to another. He compared the mortality of fevers and cholera with that of plague and pointed out how comparatively small were the ravages of the present epidemic. He instanced the deaths from cholera and fevers in India at 5,000,000 annually and remarked that the whole country had been disturbed, all its commercial and social arrangements were put out of joint, while the mortality remained at a definite level. "Plague visitations will never ruin India but plague repressive measures may lead to serious troubles. It only remains to say that 'if all the money that has been spent in India or that will yet be spent on uncertain and unsatisfactory repressive plague measures had been used for the execution of well-planned and well-executed schemes of permanent sanitary reform in all the towns and cities of this country under the head of plague expenditure' the country at the end of the plague would have had something real and tangible to show for the great outlay which has now gone and is still going on in wasteful expenditure."

Dr. Ismail Jan Mahomed gave evidence as to the first outbreak in August, 1896. He combated the theory that plague had been brought by the Sadhoo pilgrims from Kumaon and pointed out that the district where plague first occurred was a large emporium for goods imported from China, and there was a direct communication between Bombay and Hong-Kong. Dead rats had been found in these warehouses before the plague was discovered. He had not heard a single complaint in the Khoja community about inoculation having produced ill-effects or impaired the general health of the inoculated.

Dr. Katrak had formed the opinion that the statistics available up to date proved that the percentage of attacks from plague amongst the people inoculated with the plague prophylactic was much smaller than that amongst the people not so inoculated, and that the percentage of mortality from plague amongst the inoculated attacked was much smaller than that amongst the people not so inoculated. He laid before the Commission the result obtained of the bacteriological examination of 19 bottles of the prophylactic fluid. They were all found to be sterile. He referred to this to combat the statement made that the plague prophylactic was a putrescent fluid.

Mr. James Macdonald showed how the fatalistic ideas of the people prevented the success of measures for stopping the spread of plague. The natives if they were to die all preferred to die in the hands of their caste and friends. He referred to the want of success when house-to-house visitation was placed in the hands of native gentlemen of position.

Lieutenant-Colonel Henderson, I.M.S., stated that immediately before the appearance of plague in epidemic form at Hyderabad (Sind) rats, dead and dying, in considerable numbers were found. With their appearance local cases occurred and where they went the disease followed. That they played a very important and frequent part in the diffusion of plague was beyond a doubt. Infection through skin abrasions were the exception and not the rule. A method of infection more than problematical was through the food, because natives squatted on the ground, often ate their food off leaves used as plates, and frequently picked up fragments from the floor itself. He said that rats and mice fed on cultures or infected food had developed plague, and why should not food eaten off an actually infected floor prove a source of danger?

Captain Milne, I.M.S., gave detailed evidence concerning stored prophylactic fluid. Of 125 bottles of different series 104 had satisfactory sealing, but six were found to be contaminated. Of the 21 imperfectly sealed 20 were found to be contaminated. The conclusion seemed to point emphatically to the contamination of bottles taking place after the material has been bottled and sealed up and was due to the imperfect condition of the sealing. Experiments were being made to substitute a more effective method of sealing and corking the bottles.

Dr. C. Balfour Stewart said that his work consisted in

testing the flasks of broth to ascertain that it was a cultivation of the plague microbe and that it was pure and not contaminated. He had experimented to test whether the prophylactic fluid with its half per cent. of carbolic acid was a fluid liable to undergo putrefaction when exposed to the air and he found that after 16 or even 20 days it contained very few foreign organisms, whereas a flask of sterile ordinary broth decomposed within three days. He concluded that the prophylactic as prepared was not suitable for the growths of organisms falling into it from the air. They did not multiply rapidly and perhaps not at all.

Professor T. K. Gajjar (who succeeded in removing the stains from the Queen's statue where all others had failed) propounded some extraordinary theories. He said that wherever inoculation had been introduced on a large scale the results had been most disastrous among the uninoculated, there having been excessive mortality among the uninoculated shortly after inoculation had been introduced, and instanced Dharwar, Kirkee, Hubli, and Mysore to prove his contention. (This idea is one evidently of confusing the *post hoc* with the *propter hoc*.) He also said that it was claimed that the prophylactic serum was a sterilised fluid containing dead germs only and toxins but that it remained to be proved that these so-called dead germs did not crop up into activity in living systems. He thought that the gradual development of feverish and other symptoms pointed to the development in the system of a contagion of a living and multiplying nature derived from the inoculated serum.

The question of curative serum appears to be at a deadlock. Very little seems available and the results so far are of no practical avail. It is said that the experimenters for the Plague Commission have absorbed the supplies. If this be the true explanation the municipality have not got much for their money, because at least Rs. 15,000 must already have been spent on its production and abundant time has been allowed for its almost unlimited preparation. The failure of supply at the height of the epidemic when money and time have been given for the purpose in anticipation of this re-development requires further investigation.

Plague has again broken out in Calcutta and the Venice Convention regulations have been imposed against it.

Feb. 18th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Foreign Consuls and the Liverpool School of Tropical Diseases: Address by Professor Rubert Boyce; Further Donations to the School.

A MEETING of the Foreign Consuls Association was held in the Liverpool Chamber of Commerce on March 9th for the purpose of hearing an address by Professor Boyce on the Objects and Intention of the Liverpool School of Tropical Diseases. The chair was taken by Mr. J. C. Pinto, Brazilian Consul-General, and there was a large attendance of foreign consuls. In the course of his address explaining the objects for which the school was founded Professor Boyce made the interesting statement that during the year 1897 the number of malarial cases treated in the Liverpool hospitals was 242, of beri-beri 14, of dysentery 30, of tropical anæmia 39, and of scurvy one. The number of malarial cases in 1898 had increased to 294. Mr. Alfred L. Jones suggested that they should pass a resolution to the effect that each consul should ask his Government to give practical aid to the scheme either financially or by placing medical men in all countries in communication with the Liverpool school. Mr. Ehrenberg, consul for Sweden and Norway, said he would support such a resolution if it was understood that each consul would be left to take the steps he thought best to bring the matter before his Government. He would suggest the circularising of medical men in each country. The following resolution was carried unanimously, on the motion of Mr. Alfred L. Jones, seconded by Mr. Ehrenberg: "That this meeting of consuls expresses its appreciation of the great importance of the work undertaken by the Liverpool School of Tropical Diseases and suggests that each consul should bring the matter to the attention of his Government and also of the medical profession and others interested in such a way as may seem best to his judgment." A vote of thanks was carried by acclamation to Professor Boyce for his instructive address.—Further subscriptions towards the maintenance of the School of Tropical Diseases have been promised. Sir Raylton Dixon, the well-known ship-builder of the Tees, has promised to subscribe 100 guineas a year, and a donation of £100 in the joint names of Mrs. George Holt and Miss Holt is also announced. These subscriptions indicate the public interest which is taken in the new school and the probability is that further assistance will be forthcoming. The Liverpool Chamber of Commerce have appointed Dr. Edward Adam of Shaw-street to represent the Chamber on the committee of the School of Tropical Diseases. Dr. Adam has had a wide experience of the treatment of these diseases through a residence of some years on the West Coast of Africa prior to his settling in Liverpool.

Infectious Diseases in Liverpool: Need of Hospital Extension: Local Government Board Inquiry.

At the Local Government Board inquiry recently held relative to the application of the City Council to borrow £63,500 for hospital extension Dr. Hope, the medical officer of health, stated that Liverpool possessed only 480 beds for infectious diseases and of these 100 were in buildings of a temporary character. Instead of having 100 beds available for small-pox they had less than 40. During the last three months, owing to the want of room, the corporation had been unable to remove 317 cases to hospital, notwithstanding that the patients' friends and their medical attendants were desirous of having them removed. Liverpool should have 650 beds and also a minimum of 100 beds for small-pox. It commonly happened that infectious diseases spread because of inability to find hospital accommodation. One of the most important orphanages in the city and the Liverpool Infirmary for Children had had to be closed for a few weeks during the early part of this year in consequence of this inability. The rate of mortality from diphtheria during the past year had been higher than at any previous period and, in Dr. Hope's opinion, this high rate was largely contributed to, if not entirely caused by, the fact that they were not able to remove these cases to hospital.

Banquet given by the Lord Mayor of Liverpool in Honour of Professor Lodge: Munificent Donations towards the Erection of a Physical Laboratory.

On the evening of March 4th the Lord Mayor entertained at dinner at the town hall Professor Oliver Lodge in honour of his having received the Rumford Medal of the Royal Society. The Lord Mayor referred to the necessity for the erection and equipment of a laboratory for physical research, for which Professor Lodge has been recently pleading, his present quarters having become totally inadequate, as stated in a former issue of THE LANCET. Principal Glazebrook intimated that an anonymous donor had promised £10,000 towards the establishment of such a laboratory and that Sir John Brunner had promised to give £5000, whilst Mr. Alfred Booth had promised £2500 provided three other gentlemen would each give a similar sum. With such generous contributions Professor Lodge is in a fair way of having his dearest wishes soon realised.

The Proposed Treatment at West Kirby of Chronic Diseases in Children.

A large and influential gathering took place on March 8th in the town hall, under the presidency of the Lord Mayor, for the purpose of providing hospital wards in connexion with the Children's Convalescent Home at West Kirby for the country treatment of children suffering from chronic but curable diseases. The provisional committee appointed a few months ago for the promotion of this object, of which notice appeared in THE LANCET, have had several interviews with the committee of the convalescent home at West Kirby and finally definite arrangements have been made by which for a fixed yearly payment of £25 per bed 20 beds are placed at the service of the committee having this scheme in hand for the reception of the chronic cases. Although working in association with the West Kirby home the committee will be independent, the finances will be distinct, and the medical and surgical treatment will be in the hands of specially appointed officers working in association with the medical officers of the convalescent home. £600 a year will be required to maintain the 20 beds and from the encouragement given to the project in influential quarters it is confidently expected that the requisite amount will be shortly forthcoming. Mr. Robert Jones, surgeon to the Royal Southern Hospital, and Dr. Charles J. Macalister, physician to the Stanley Hospital, have been appointed visiting surgeon and physician respectively.

March 14th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh Royal Medical Society.

ON the evening of Friday, March 10th, the annual dinner of the Royal Medical Society was held in the University Union, when about 80 gentlemen dined together. The guest of the evening was Sir William Overend Priestley, M.P., who, in replying to the toast of his health, said that he was quite in agreement with the society in his affection for the University of Edinburgh. He regarded himself as owing everything to Edinburgh University and to Edinburgh itself. He not only owed his education to the University of Edinburgh, but from Edinburgh he carried away a wife with whom he had lived in unclouded happiness for between 40 and 50 years; and, to crown all, the University of Edinburgh had conferred upon him the greatest happiness of his life by making him its representative in Parliament. Since the time when he was a student in the University great changes had come over the place. The whole of their educational facilities were then confined to the quadrangle of the Old University, but since then the new University buildings had sprung up as well as the magnificent new Medical School, the Union in which they were assembled, and the M'Ewan Hall, in which the great celebrations of the University were held. He had the privilege of studying at a time when there was in the University a company of professors such as had never previously been equalled and which perhaps would never be equalled again—Alison, Robert Christison, James Syme, James Young Simpson, Hughes Bennett, Goodsir, William Hamilton, Aytoun, Christopher North, Gregory, and Pillans. He thought that the teaching of Edinburgh University was a model for all other universities in the world. In the University of London, for instance, a pupil might get his education anywhere and simply present himself for his examination, but a university conducted on these lines could be none other than a stepmother to a man; in Edinburgh they had a real *alma mater*. He need not tell a meeting composed so largely of medical men how noble was the profession which they had chosen. It was one which satisfied all the aspirations of an honourable man, and when men settled down to practise they ought to regard their profession from its higher aspects and look upon the public good as their foremost object. Sir William Gairdner, replying to the toast of "The Scottish Universities," said that these universities had of late been passing through a critical period of their existence. They had been the subject of a very long inquiry held by a Royal Commission and certain changes had been introduced. He had misgivings about these changes in some respects, but on the whole he was prepared to admit that the Commission had done its best, and he trusted that the result would be the placing of the Scottish Universities in a still stronger position than they had hitherto occupied. Though a professor in Glasgow University he was an Edinburgh man. He sincerely hoped that the University of Edinburgh would long maintain its great reputation. In his subsequent remarks Sir William Gairdner spoke of the great change which had come over the system of medical teaching and practice since his student days. Sir William Priestley, in proposing the toast of "The Royal Medical Society," observed that it compared very favourably with the debating societies or unions of Oxford and Cambridge, and that it performed a most useful function not only in exercising its members in the subjects which they were taught, but in training them to be debaters.

University of Aberdeen.

The interesting and valuable museum of Egyptian antiquities collected by the late Dr. James Grant (Bey), A.M., M.D., LL.D. Aberd., and presented by his widow to the University, was formally opened on March 11th, all the articles having been efficiently arranged at King's College together with other curios and antiquities there. An "At Home" was given by Principal Sir W. D. Geddes and Lady Geddes on the occasion.

Measles in Aberdeen.

This epidemic is now declining, the number of new cases reported for the week ending March 11th being 488, as compared with 630 and 602 respectively for the two previous weeks. During the month of February 33, or 12·7 per cent., of the deaths in Aberdeen were due to measles.

Aberdeen District Nursing Association.

During last year 984 of the sick poor were attended to at their own homes, being 196 more than in the previous year.

March 15th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

National Hospital for Consumption for Ireland.

THE annual meeting of the supporters of the National Hospital for Consumption for Ireland, situated at Newcastle, county Wicklow, was held at 6, Stephen's-green, on March 13th. The President of the Royal College of Physicians of Ireland, in moving the adoption of the report, suggested that the attention of Her Majesty the Queen might be called to the advantage which would accrue to the hospital if she was pleased to extend her Royal patronage to it and to confer on it the title of "Royal." The Registrar-General, in seconding the motion, said that the great thing at present was to convince the public that consumption was preventable and curable. If that was done there would be no difficulty in obtaining the necessary funds for a considerable addition to the hospital.

The City of Dublin Hospital.

At the last fortnightly meeting of the Pembroke Urban District Council a letter was read from the directors of the City of Dublin Hospital asking for an increase in the grant to that institution and pointing out that a considerable proportion of the patients came, not from Dublin, but from the Pembroke township. Dr. Cranny proposed that the annual grant should be increased and it was ultimately raised from £100 to £200. There always seemed something Irish and odd about the title "City of Dublin" being applied to the only one of the Dublin hospitals situated outside the city, but the founders of the institution prove to have been wise in their generation and the hospital is now in receipt of an annual grant of £400 from the city corporation and an additional £200 from the Pembroke township.

Death of Mr. M. A. Boyd, M.D. Brux., F.R.C.P., F.R.C.S. Irel.

The death of one of the best known and most highly esteemed of the physicians of Dublin, Dr. M. A. Boyd, took place on March 5th. The deceased who was aged fifty years was apparently in his usual perfect health and was seeing after his patients up to the evening of Monday, Feb. 27th, when he was suddenly attacked with acute pleuro-pneumonia, which proved fatal on the following Sunday. He was for many years one of the physicians to the Mater Misericordiæ Hospital, Dublin; consulting physician to St. Michael's Hospital, Kingston, and to the National Lying-in Hospital. He was the author of many able contributions to the Transactions of the Royal Academy of Medicine of Ireland. Outside the ranks of his profession Dr. Boyd was widely known and exceedingly popular. He was a member of the Royal Irish Academy, as well as of many art societies, where his annual exhibits of clever water-colour sketches taken during his summer holidays will long be missed. He was a popular member of the Ward hunt and, in fact, was out hunting with that famous pack of hounds two days before the commencement of his fatal illness. The sympathy of all classes in Dublin was roused by the pathetic circumstances that the deceased's mother, to whom he had been much devoted and who had been in failing health for some months, succumbed to the shock of her son's death and died a few hours after him. The double funeral which took place on March 4th was very largely attended, the students of the Mater Misericordiæ Hospital being represented by a contingent of over 100 who joined the cortège as it passed in front of the hospital on its way to Glasnevin.

Rotunda Hospital, Dublin.

At a meeting of the governors of the Rotunda Hospital, which took place on March 10th, attention was called to an interesting improvement which the Master is about to introduce in supplying the operation theatre with sterilised air.

Royal Army Medical Corps.

The Secretary of State for War has requested the Royal College of Surgeons in Ireland to nominate Licentiates

of the College for commissions in the Royal Army Medical Corps.

Victoria Hospital for Diseases of the Nervous System, Belfast.

At the second annual meeting of the supporters of this hospital, held on March 9th, it was reported that during the year 246 patients had received treatment. The receipts from all sources were £356 4*s.* 6½*d.* and the expenditure had been £224 16*s.* 5*d.*

The Election of Poor-law Guardians.

The annual election of Poor-law guardians for the Belfast Union is shortly to take place and it is interesting to note that there are nine lady candidates, the largest number who have ever come forward. The general feeling in the city is that it would be most desirable that lady guardians should be elected. The Poor-law system in Ireland is in a deplorable condition, the problem of what to do with able-bodied paupers and the question of the great importance of separating young children from associating with the workhouse, either by the establishment of cottage hospitals or boarding-out, demanding the most careful consideration. The feeling is growing stronger that in many questions to be dealt with under the Poor-law system the presence of suitable lady guardians would be of enormous value at the boards.

March 15th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

A New Chair of Gynæcology.

ON Feb. 27th the Chamber of Deputies refused a recommendation of the Committee of Supply with reference to a vote of credit of 18,200 francs for a new chair of Clinical Gynæcology at the Paris Faculty of Medicine. This chair will, however, after all be shortly founded, thanks to the concurrence in the scheme of the municipal council. A committee nominated by the town and the University of Paris met recently and decided unanimously to propose the creation not only of the chair of Gynæcology but also of one in the Clinical Surgery of Children. The candidates most widely spoken of for the chair of Gynæcology are MM. Pozzi, Bouilly, and Richelot. The last named is strongly supported by the municipal council and M. Pozzi who is a senator is the favoured ministerial candidate.

The Parasites of Cancer.

At the meeting of the Society of Biology held on March 4th Professor Curtis of Lille communicated the results of some researches which went to show that the results previously published for some time past upon the inoculable or cultivable parasites of cancer were invalidated by some error in the methods employed. Only recently M. Bra, following in the steps of many other experimenters, has described in great detail a micro-organism which he succeeded in cultivating and which in his opinion was the pathogenic germ of cancer. M. Curtis, however, declared that if one took every precaution to eliminate extraneous organisms and other sources of error neither culture nor inoculation results were obtained. For his own part he employed nothing but absolutely fresh tissues and of such only those which showed no ulceration and had not been accidentally infected. All operative measures must be carried out with speed and quite aseptically. The first condition to observe was to use the tumour tissue within a few minutes of its removal from the body and to take care that even during this short space of time the temperature of the fragment should be kept up. So as to avoid the danger of accidental infection M. Curtis never employed any growth showing the least sign of ulceration, for, to give an instance, in a cancer of the breast experimented on while still warm and which was slightly ulcerated he had found the bacillus coli together with the staphylococcus, both albus and aureus. Another point noticed was this—all new growths, even though not ulcerated, which have anything to do with mucous membrane are always infected with micro-organisms, while ulcerated growths of the vagina or uterus simply swarm with every kind of bacterium. M. Curtis, therefore, decided to use in his experiments no growths other than those of the testicle or the breast and these only when they were quite free from ulceration. It is necessary, according to M. Curtis, not to use any ulcerated growth, any growth springing from mucous membrane whether ulcerated or not, or any growth of any part of the alimentary canal or of the genital passages. All of these give rise to error from accidental infection. M. Curtis made his experiments as soon as possible after the removal of the growth from the body and the inoculations were finished within three-quarters of an hour. The fragment of cancerous tissue was taken from the middle of the growth by means of a specially constructed and carefully sterilised harpoon and inoculations were made sometimes in the peritoneal cavity, sometimes under the skin of the back, and sometimes at the junction of the limbs and the body. The animals used were dogs, rabbits, guinea-pigs, and white rats. Experiments were made with both solid tissue and triturated pulp. Bacteriological experiments were made every time with more than 12 different kinds of culture media, some solid, some liquid and representative of those most usually employed in laboratories. In 25 experiments, all conducted with extreme care, he obtained no definite result either when bacteriological cultivations were employed or by using inoculation experiments in animals. Fragments of tissue enveloped in collodion and placed in the peritoneal cavity of a rat gave a negative result. To sum up, M. Curtis considers that the epithelial cancer of man is neither inoculable nor cultivable by any means hitherto employed and that all observations tending to show the contrary which have been so far published are faulty owing to errors in technique.

Notes on News.

At the meeting of the Academy of Sciences held on Feb. 27th Professor Ray Lankester, whose works have a great reputation throughout France, was elected a Corresponding Foreign Member.

The census of persons practising medicine in France showed at the beginning of the year 1899 a number of 17,735, at the beginning of the year 1898 15,984, thus showing an increase for 1899 of 1751, a figure which is by no means what might have been expected when the very small increase in the general population is taken into existence and which augurs very badly for the future of the medical profession in France owing to the great decrease in disease thanks to the improvements in sanitation.

The Association for the Care of Tuberculous Children held its annual meeting on Feb. 25th, Dr. Herard, member of the Academy of Medicine, being in the chair. The treasurer in his report said that the association at the beginning of the year 1888 had only 12 beds; it now possesses two special hospitals at Armesson and Villiers with 350 beds and two convalescent homes at Noisy and Trémilly. The expenditure is 400,000 francs per annum. In 10 years the association has treated 9514 sick children, representing 326,859 days in hospital and 19,547 consultations. In the near future the convalescent homes will be increased to four in number and the children who have got well will be trained there to agricultural work and other out-of-door occupations which offer the best chance of a healthy future for them.

March 14th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Criminal Anthropology: the Approaching Congress.

THE important debate in the Italian Chamber of Deputies on the Government Bill which has now passed the second reading on "Delinquenti Recidivi" (relapsing criminals) brought into salient relief the steady and sure, if slow, penetration of psychological medicine into what has hitherto been a "juridical preserve." "In Italy," said one of the speakers, "indeed in all other countries except England, crime shows a continuous increase as statistics dating from 1890 demonstrate." England, he proceeded to argue, maintains this honourable position because her legislature seriously and effectively takes note of the predisposing causes and the active incentives to crime and shapes its provisions accordingly. More than half a century ago Dr. Bruce Thomson of the Perth penitentiary insisted on the hereditary and self-evolving character of certain forms of criminality, deducing from his premisses the existence of a criminal class which must be broken up and dispersed or so separated from the conditions favourable to its reproduction as steadily to minimise its numbers and gradually to lose the inveteracy of its "criminal habit." These wise words are beginning to find an effective audience in Italy, where hitherto the "disaccord between the judiciary police (the 'magistratura

giudicante') and the prison administration" has been a promoter and not a counter-agent of the prevailing criminality. But Italy, according to the same speaker, (the Hon. Enrico Ferri, *privat-docent* in Criminal Law and Administration in the University of Rome), must begin at an earlier stage than is necessary in England, Switzerland, or other nationalities economically more favoured. She possesses in numbers sufficient to form a substantive portion of her population a physically and morally degenerate type which, unless subjected in childhood or even infancy to countervailing conditions, reproduces itself with ever intensifying distinctness till there is engendered the "delinquente nato" (born criminal)—not the occasional offender, from whom society has nothing to fear, but the congenital and systematic delinquent who simply multiplies and becomes more dangerous under the merely repressive measures hitherto in practice. In this contention he had the support of other members of the Chamber, not those of medical training and profession merely, but barristers themselves and "publicists" or men of affairs. He was ably followed by Signor Ludovico Fulci who, while confirming the statement as to the increase of crime, denounced the prevailing penal system as feeding the malady it meant to destroy; and by Signor Venturi who agreed with Professor Ferri that "delinquenza è una malattia" (crime is a disease) in the class whose conditions the Chamber was considering—the "recidivi." I need not go into the minor details of the discussion—most interesting psychologically and socially as they often were—the uselessness or worse of deportation over sea, for instance, a system abandoned by all but France, or the utilisation of criminal hands in the reclamation of malarious localities on which Signor Bonacci gave most instructive evidence, especially as to the employment of such labour by the Trappist Brothers of the Tre Fontane. Rather would I point out the significance of the whole debate in view of the International Congress of Criminal Anthropology to be held next August at the Hague, at which not a few of the members of the Italian Legislature will intervene and contribute to its discussion something more than the "vivacity" and the "theoretical dogmatism" which enlivened if it did not enlighten the Congress at Geneva in 1896. The triennium which has elapsed has been exceptionally full of incidents on which the criminal anthropologist can speak with relevance and authority—incidents which, like the organised political assassinations and the riots promoted under kindred auspices, have led to "Leagues against the Knife" and other palliative attempts culminating in the International Congress for the Repression of Anarchism which concluded its sittings in Rome just before Christmas. These "attempts," palliative or repressive, have been without medical inspiration or have partaken so little of the "medical mind" as to require all the supplementary and corrective handling which the Congress of Criminal Anthropology can so amply provide. The literature alone that has accumulated on the "genesis and conditions of crime, occasional or systematic, social or international," would of itself suffice to give directness and precision to the proceedings—literature in which pyschological medicine is largely and ably represented as well as advanced with an authority which neither jurist nor civil legislator can afford to ignore.

March 12th.

CONSTANTINOPLE.

(FROM OUR OWN CORRESPONDENT.)

Plague in Jeddah.

BUBONIC plague has now made its appearance in Jeddah for the third time, some cases having been discovered on Feb. 22nd by Dr. Xanthopoulidis, sanitary medical officer of the town. Before formally notifying the fact he made a bacteriological examination and found the plague bacilli. He also prepared cultures and made inoculations so that the diagnosis was placed beyond doubt. Since the above-mentioned date there have been six deaths from the disease. The Jeddah authorities assert that the houses in which these deaths occurred were not occupied by plague patients either during the present year or in the previous epidemics but it remains a question whether the said authorities had knowledge of all the houses in the town where plague cases existed. If in civilised countries the notification of zymotic diseases presents difficulties what may be expected of notification in Jeddah? In addition to the unwillingness of the inhabitants to give such information their religion forbids a woman's dead body to be exposed in sight of a man. In all probability there were many houses in Jeddah in which plague existed unknown to the local authorities. Last year after the departure of the pilgrims the Turkish authorities undertook the disinfection of Jeddah, and it was at first proposed to disinfect all the houses without any distinction, but in the result it was only the few houses in which plague was known to have occurred that were disinfected. The plague was not imported by the pilgrims who proceed to "Hedjaz" through Jeddah, for they undergo a ten-days' quarantine at the lazaretto of Camaran, where their belongings are thoughly disinfected. The disease was imported by "sanitary smuggling," which is rife on those shores of the Red Sea. The outbreak of plague in Jeddah at this moment acquires a great importance on account of the pilgrimage to the Mahommedan holy cities, Mecca and Medina. In the latter two cities no case of plague has been observed in the last two pilgrimages. It is to be hoped that the present year will be equally exempt, with which object in view the authorities of the "Hedjaz" are doing their best to prevent the spread of the epidemic and Dr. Cozzoni, Inspector of the International Sanitary Commission, is proceeding to Jeddah for the purpose of superintending the work. The measures adopted will be as follows: (1) the town of Jeddah with its surrounding villages will be isolated by a sanitary cordon; (2) the infected houses will also be isolated by a sanitary cordon, in addition to which the belongings of all plague patients will be burned, distilled water will be supplied for drinking purposes, and all the sanitary steps decided on last year will be put in operation; (3) the pilgrims who are at this moment at Jeddah will be removed to the island of Abas-Saad where they will await further instructions; (4) no pilgrims or passengers will be allowed to leave Jeddah for Mecca until buildings have been erected at Bab-el-Mecca (Mecca Gate), where they will undergo quarantine; (5) pilgrims arriving at Jeddah must land at a new wharf which is being constructed at a place six miles north of Jeddah; the pilgrims for Mecca will land there and proceed straight to Mecca without having any communication with Jeddah; and (6) in other ports of the Turkish empire arrivals from Jeddah will be subjected to 10 days' quarantine.

Small-pox and Influenza.

Small-pox has been excessively prevalent in Constantinople for some time now and is very fatal. The people disregard the law which makes vaccination compulsory, although the Government has given stringent orders that its provisions are to be carried into effect and no fees are charged. There is also a good deal of influenza, but not so much as in some other capitals. The deaths from influenza are not registered in the *Bulletin de la Mortalité* published every week by the sanitary board. Only the deaths from acute inflammation of the lungs are registered; the number of these deaths is about 50 per week.

Chemical Analysis in the Custom-house.

Many years ago the custom-house authorities seized a large quantity of quinidine imported as sulphate of quinine and it was then ordered that all samples of quinine should be analysed in the custom-house. In course of time other medicines were directed to be analysed and the system was at last extended to a variety of imported products, such as flour, wine, oil, soap, &c., which, unless they were of a quality satisfactory to the chemists, were not allowed to pass through the custom-house into the possession of the merchants. Large quantities of imported goods were declared by the chemists to be prejudicial to health, but the trading community was not of their opinion and after some difficulty it was arranged between the Government and the foreign representatives (embassies, legations, and consulates) that the custom-house analyses should be made in the presence of a chemist acting on behalf of the merchants. This checking of their methods by a foreigner was highly distasteful to the custom-house officials and has not prevented great quantities of goods being stored in the custom-house for many months, delivery to the merchants being refused on account of the alleged inferior quality of the articles. The officials wished to forbid the importation of American flour of the best quality, containing more than 15 per cent. of gluten, but the American consulate, supported by the American Legation protested vigorously and the flour has been delivered to the consignee. Merchants, who are not protected by legations as the Americans are,

have to submit to the detention of goods, even of excellent quality, at the custom-house.

March 2nd.

Obituary.

SIR DOUGLAS GALTON, K.C.B., D.C.L., LL.D., F.R.S.

THE profession of medicine had not the honour of numbering the late Sir Douglas Galton among its members, but nevertheless many aims and objects were common to both. The occasion of the death of Sir Douglas Galton affords a fitting opportunity for us not only to put on record our sense of the loss which the public and the profession have sustained but to touch upon a few of the lessons to be derived from a scientific career and the application of high scientific attainments directed for the most part to purposes from which we all benefit but about which so few of us are mindful. Sir Douglas Galton was a many-sided man. His energy was great and the amount and varied nature of his work were remarkable. Railways, fortification, ordnance survey, submarine telegraphy, schemes for London sewage disposal, the designing of hospitals, the ventilation and warming of houses, and work in connexion with secretarial duties at the War Office, Her Majesty's Office of Works, the British Association for the Advancement of Science and the Royal Society made up his life-history. But it was his keen interest in all matters affecting public health and his practical knowledge and scientific attainments which made him an authority on hospital construction, sanitation, ventilation, and the hygienic management of public buildings. His main aim was to substitute scientific formulæ and deductions derived from experimental observations and accurate data for the rule-of-thumb laws and more or less vague generalisations on which systems of sanitation at one time rested and to put sanitation upon a scientific plane—in brief, to make a sanitary science properly so called. Of course he was neither the first nor was he alone in striving to do this, but he was nevertheless among the pioneers and he happily lived to see not only how much had been accomplished, but to realise how much more was really comprehended in sanitary science than was circumscribed within its merely apparent limits. As a lake or river often unexpectedly overflows its banks so does the rapid growth and increased application of a scientific branch of study sometimes overstep the limits of the terms in which it is expressed. If in this and other scientific work Sir Douglas Galton cannot be credited with many original investigations or discoveries he always maintained an appreciative mind for them. He at once recognised the importance of following and utilising nature's method in the biological system of treating sewage, for example. It is not easy to describe Sir Douglas Galton's career because of the number and variety of the posts which he occupied, but a mathematical turn of mind and a love of physical science formed the thread on which all his scientific studies and occupations were strung. Still, he was not by any means a mere foot-rule philosopher; the salt of humour flavoured his intellectual soil; he was eminently fair-minded, and a judicious and well-read, genial man. He was a Rugby boy at the time when Dr. Arnold made its reputation and his own and when the author of "Tom Brown's Schooldays" was gathering together the material and incidents for that work. He went to Woolwich and after a most distinguished and successful career passed out of the Royal Military Academy into the Royal Engineers. Among other things it may be mentioned that he was instrumental in getting the Barrack Works Committee of 1862 appointed by the then Secretary of State for War. This was not an altogether popular measure at the time, but it was the means of leading to great and beneficial changes, in that it fixed individual responsibility upon all those connected with the execution of public works. From the time of the Crimean War almost up to that of his death Sir Douglas Galton was keenly interested in all that related to army sanitation and practical hygiene and he did a great deal in common with Dr. John Sutherland, Sir Robert Rawlinson, Professor Parkes, and others to bring about the immense change which has taken place during the last 40 or 50 years, with what results may be more readily appreciated by the following contrast. In the report of the Royal Commission of 1858 it is stated that the rate of mortality in the army at home was 17·5 per 1000, whereas in 1897 it was only 3·42 per 1000, and the provision of hospital accommodation in our home garrisons, which was at the rate of 10 per cent. of the strength, has now, we believe, been reduced to six per cent. Turning to the European army in India the mortality rate prior to 1857 reached 69 per 1000, according to the report of the Royal Commission of 1863, whereas it was only 14·84 per 1000 in 1896 according to the report of the Sanitary Commissioner with the Government of India for that year. It cannot, of course, be claimed that these results are solely attributable to improved sanitation, for numerous other changes have taken place which have largely contributed to bring them about—in the way of short service, the better feeding, clothing, and equipment of soldiers, increased facilities for invaliding, and so forth. Still, improved sanitation and better barrack accommodation and other hygienic measures too numerous to mention are to be largely accredited with the vast change that has taken place. If we had to point to a practical illustration of the beneficial effect of measures of a purely sanitary kind we probably could not select a better one than the contrast between the prevalence of ophthalmia as it was in the army many years ago and as it is now. There was a time when ophthalmia was an army scourge. Soldiers in other respects healthy were to be found suffering from ophthalmia in most of our military hospitals at home and abroad and were constantly being invalided from that cause. In towns and villages there might be encountered discharged soldiers whose slow steps, shuffling gait, contracted brow, and watery eyes proclaimed the nature of their complaint. But better barracks and improved ventilation and lavatory arrangements have practically banished the military form of ophthalmia once so prevalent just as epidemics of typhus fever have ceased to appear in our midst. Sir Douglas Galton was a member of the Army Sanitary Committee from its beginning and was the possessor of numerous academical and scientific titles and distinctions. He was made F.R.S. in 1863, and became the President of the British Association for the Advancement of Science and delivered the presidential address in 1895, besides being a D.C.L. of Oxford and LL.D. of Durham and Montreal. He was made a K.C.B. in 1887.

FRANCIS NOTTIDGE MACNAMARA, M.D. ST. AND., M.R.C.S. ENG.,

RETIRED SURGEON-MAJOR I.M.S.

DR. FRANCIS NOTTIDGE MACNAMARA, whose death occurred on the 5th of this month, as we have already reported in these columns, was a distinguished physician and sanitarian whose best work was done in India. He received his medical education at King's College, London, and in 1853 entered the Indian Medical Service. While quite a young man he was selected by the East India Company to be Professor of Chemistry at the Calcutta Medical College, a post which carried with it the appointment of Chemical Examiner to the Indian Government. He interpreted his duties in each capacity in the most liberal way, devoting 17 of the best years of his life to carrying on numberless sanitary, chemical, and pathological investigations. He was early to point out the danger to a community of using drinking-water that was exposed to the infection of cholera and was one of the initiators of the present scheme by which Calcutta is supplied with pure water. Upon his return to England in 1870 he left the service, but he was appointed Examiner of Medical Stores at the India Office—a post which he was about to resign when he died at the age of 67 years.

Dr. Macnamara embodied his great knowledge of India in his work, "Climate and Medical Topography in their Relation to the Disease Distribution of the Himalayan and Sub-Himalayan Districts of British India," while he contributed many valuable monographs on pathological and chemical subjects and on the disease of warm climates to medical literature.

The following appreciation of Dr. Macnamara is from the pen of his old friend and colleague, Sir Joseph Fayrer:—

"In THE LANCET of March 11th I read with great regret a short paragraph announcing the death of Dr. F. N. Macnamara of the Bengal Medical Service. I little thought when quite recently I stood by his side at the grave of our mutual friend and colleague, Samuel Bowen Partridge, that

we should so soon have to deplore the loss of this eminent medical officer, one whose whole life claimed the admiration of his numerous friends and brother officers and who through a long and distinguished career had rendered services of the greatest importance to the country and people in and among whom his useful life had for so many years been spent. The value of these services, though as unostentatiously as earnestly rendered, was thoroughly appreciated though they never that I am aware of received the public recognition they merited, yet they will long be gratefully remembered by the students and Dr. Macnamara's colleagues in the Medical College of Calcutta of which he was so brilliant an ornament, as by all to whom his noble personal character and courteous bearing endeared him. These services, of the greatest scientific importance, were not limited to India, for on his retirement some years ago he was appointed a member of a committee to inquire into and regulate the supply of drugs and medical stores to India and as a result of that inquiry he was appointed by the Secretary of State to supervise the administration of a new department which has worked most satisfactorily and beneficially both to the Government and India and well merits recognition of its importance and value. As an old friend and colleague as well as an admirer of his valuable services I desire to pay this brief tribute to his memory."

JAMES WILLIAMSON, M.D. ST. AND., L.R.C.S. EDIN., L.S.A.,

FORMERLY OF SOUTH SHIELDS.

THE death is announced of Mr. James Williamson, M.D. St. And., L.R.C.S. Edin., L.S.A., at the ripe age of 84 years. Dr. Williamson was the son of a Baptist minister of North Shields, but he was born at Littleborough, near Rochdale. He became the pupil of Messrs. Ingham and Greenhow of North Shields, of whom he always spoke in terms of great respect. He studied in Edinburgh. While yet a medical student and in the interval of sessions he, in accordance with a not uncommon custom of those days, sought employment as surgeon to a well-known Greenland whaler, *The Lady Jane*, which sailed in 1835 from the Tyne. The good ship was unfortunately detained in the ice in Davis Straits from Oct. 5th of that year to Feb. 19th, 1836. On the last-named day a gale of wind broke up the ice and blew *The Lady Jane* into the open sea. In those days no provision for such detention in ice-bound waters was made and the results to the crew were disastrous. They had to live for months on a biscuit a day and 27 of the crew died from scurvy. Only 16 men were left to work the ship to the Orkney Islands where they were all placed in the hospital and sent home to North Shields. This experience made an indelible impression on Dr. Williamson who was the last survivor to tell the story, which he did on occasions, haltingly, but with weird effect. After qualifying in Edinburgh he became resident surgeon to the Dispensary of South Shields. Thereafter he was appointed surgeon to the Jarrow Chemical Company—an office which, with a considerable private practice, occupied all his time. In South Shields he was universally respected alike by the public and the profession. About 22 years ago his energy and health failed somewhat and he retired from practice, settling down in Petherton-road, Highbury, London, N., where he died. In 1897 he celebrated his golden wedding. Mrs. Williamson, three daughters, and two sons, one of them being Dr. James Mann Williamson of Ventnor, survive to feel a loss which, by care and affection, they have done much to postpone. Dr. Glover of Highbury writes to us as follows:—

"I should like with your permission to say a few words about my late and most esteemed master, Dr. Williamson. He was a most honourable example of the general practitioner of his day. He never ceased to take an interest in the profession and in the great revolutions of practice which his long age enabled him to witness. With traces of the old sailor in him dating from his Arctic adventure he was in all respects a gentleman. His tastes were classical. His practice was arduous. His prescriptions were practical. His principles were deep and religious. He was born on Dec. 9th—Milton's birthday. Though he did not much affect poetry he was Miltonic in his Puritanism, his religion being simple in its strong faith and in all the virtues which grow out of such faith. Though a staunch Nonconformist he was conservative in his religious creed and in his resistance to such views as Darwin's, but on all ordinary subjects he was liberal almost to the degree of being radical. As a friend he was invaluable and unchanging and taken for all in all I do not expect to meet a man more kind, more upright, or more devout."

JOHN ROSE, M.D. ABERD., L.R.C.S. EDIN.

ON March 7th, at the age of 76 years, Dr. John Rose of Dale Bank, Chesterfield, passed away peacefully and painlessly in his sleep. He had enjoyed good health most of his life and was of a most happy and contented disposition, and he took delight in helping those to whom he was able to be of service either in a professional or in any other capacity. A few years ago it was found that the valves of his heart were not quite sound and he was enjoined to take life easily, which his circumstances fortunately enabled him to do. Dr. Rose never married. His domestic affairs were managed by his niece who tended him most devotedly and his declining years were passed in absolute comfort, the state of his health allowing him to go about up to the end. Dr. Rose was a good Churchman, a staunch teetotaler, a true friend, and an honest, upright man. He was born at Perth House, Banff, on Sept. 20th, 1822. His university education was received at Aberdeen where he graduated as M.A. at King's College in 1840 and at Marischal College as M.B. in 1846 and M.D. in 1847. He also took the diploma of L.R.C.S. Edin. in 1846. He then passed his examination for the Royal Navy and was stationed for some time at Haslar Hospital. He was surgeon on H.M.S. *Frolic* in the Mediterranean and staff surgeon on H.M.S *Flying Fish* and H.M.S. *Nimrod* during the China war in 1857–58, being awarded a medal with two clasps for services rendered at that time. He was staff surgeon to H.M.S. *Eagle* in 1859. He was author of "Letters from the Mediterranean," "Notes on China," and numerous articles and reports of medical and surgical cases in the medical journals. On retiring from the naval service he became resident surgeon to the Kidderminster Infirmary, where he remained nine years, leaving that for a similar appointment at the Chesterfield and North Derbyshire Hospital—a post which he held for 23 years. Upon relinquishing the active duties of the latter office he was made honorary consulting surgeon to the hospital and he settled down at Dale Bank, where he died. Botany was a very favourite study with him all his life and he derived much pleasure from it during his later years. He was interred on March 11th in the churchyard of the picturesque village of Ashover.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Angelo Knorr, one of the *privat-docenten* teaching bacteriology in Munich, while engaged in the investigation of glanders had the misfortune to contract the disease, which proved fatal. He was formerly assistant in the Berlin Institute for Infectious Diseases.—Dr. H. M. Tarnovski, Director of the St. Petersburg Maternity Hospital.—Dr. Manoel Joaquim Saraiva, Professor of Hygiene in the University of Bahia.—Dr. James Henry Etheridge, Professor of Midwifery in the Rush Medical College, Chicago.

LITERARY INTELLIGENCE.—The Cambridge University Press is about to publish a new work on "Fermentation" from the pen of Professor Reynolds Green. The subject will be treated more broadly than has been usual, a good deal of space being devoted to a discussion of the relation of the soluble ferments or enzymes to the general problems of fermentation. The author inquires also into their own special peculiarities and the resemblances and differences between them and the so-called organised ferments or microbes. The book will form the next volume of the Biological Series which is now appearing under the editorship of Mr. A. E. Shipley, of Christ's College.—Messrs. Baillière, Tindall, and Cox have in the press a new edition (the third) of Sir William Broadbent's "Diseases of the Heart," with additional chapters and illustrative cases; a new work by Sir Richard Thorne Thorne on "The Administrative Control of Tuberculosis"; a new work by Mr. Berkeley Moynihan, F.R.C.S. Eng., Arris and Gale Lecturer at the Royal College of Surgeons of England, on "The Anatomy and Surgery of the Peritoneal Cavity," and several new editions of well-known works.

Medical News.

FOREIGN UNIVERSITY INTELLIGENCE.—*Giessen:* Dr. Julius Geppert, Assistant in the Bonn Pharmacological Institute, has been offered the Chair of Pharmacology.—*Greifswald:* Dr. August Bier of Kiel has been appointed to the Chair of Clinical Surgery in succession to Dr. Helferich.—*Pisa:* Dr. Augusto Ducrey has been promoted to the Ordinary Professorship of Dermatology; Dr. Landi has been recognised as *privat-docent* of Medical Pathology; Dr. G. Tusini as *privat-docent* of Surgical Pathology and Operative Medicine; and Dr. Arnaldo Fumagalli as *privat-docent* of Ophthalmology.—*Prague (German University):* The vacant chair of Midwifery and Gynæcology has been offered to Dr. Leopold of Dresden who was formerly professor in Leipsic but he has declined it.—*Strasburg:* Dr. Oscar Roemer has been recognised as *privat-docent* of Odontology, and Dr. Heinrich Ehret as *privat-docent* of Internal Medicine.

MEDICAL LONGEVITY.—Surgeon-Major John Bowron who died at Hove on March 5th entered the East India Company's service as a medical pupil in the year 1813 and was promoted to be an assistant-surgeon on the Bengal establishment in 1825. He retired from the service in 1851 with the rank of surgeon-major.

PRUDENTIAL ASSURANCE COMPANY, LIMITED.—The recently published accounts and balance-sheets show that the business of this prosperous company increased considerably during 1898. In the ordinary branch the number of policies issued during the year was 64,708, assuring the sum of £6,420,580 and producing a new annual premium income of £353,113. The premiums received during the year were £2,987,501, being an increase of £193,237 over the year 1897. The claims of the year amounted to £975,012. The number of deaths was 5191 and 2535 endowment assurances matured. The number of policies in force at the end of the year was 534,138. In the industrial branch the premiums received during the year were £4,960,756, being an increase of £167,165. The claims of the year amounted to £1,891,039. The number of deaths was 198,308 and 2181 endowment assurances matured. The total number of policies in force at the end of the year was 12,949,679; their average duration exceeds eight and a half years. The assets of the company in both branches are £33,599,708, being an increase of £3,161,371 over those of 1897. Provision has now been made for all policy-holders in the industrial branch who have been assured for 25 years to be free from the payment of further premiums as they attain the age of 75 years.

OVERCROWDING AT STOCKPORT WORKHOUSE.—Mr. Dansey, the Poor-law inspector for the district, addressed the guardians at the last meeting of the Stockport Board on a proposal for relieving the overcrowding of the workhouse at Shaw Heath. This was the erection of a three-storey brick building to accommodate 100 sick inmates at a cost of £1800. He did not know whether it was seriously meant or whether it was a very laboured joke. His experience was that the accommodation for sick and infirm persons cost at the lowest £80 a bed instead of £18, but irrespectively of the cost the Local Government Board would not sanction the erection of any more permanent buildings on the site of the present workhouse. He said: "The accommodation for the sick at the Stockport Workhouse was a disgrace to any public institution," which scathing remark was endorsed by the chairman and another of the guardians. Mr. Dansey said they had no right to mix different classes of sickness as they did and nearly every ward had too many beds. Notwithstanding these strong remarks one of the guardians tried to support the proposition to build a hospital of 100 beds for £1800 by saying "that three competent architects and a number of builders" declared it could be done and he was backed by others. Dr. E. Rayner said that "some parts of the workhouse were more suitable for animals in the zoological gardens than for the accommodation of the people now occupying them." From this it may be inferred that they are not fit for the animals in the zoological gardens, as the managers of such places have more liberal views and study the requirements of the creatures under their care with more intelligence and greater humanity than the Stockport Board of Guardians is pleased to exhibit.

HOSPITAL SUNDAY IN BRISTOL.—Jan. 29th was observed in Bristol as Hospital Sunday when the sum of £1492 was raised for the various medical charities of that city. This is an increase of £374 as compared with 1898.

UNIVERSITY OF CAMBRIDGE.—The following medical degrees were conferred on March 11th:—Doctor of Medicine: R. D. R. C. Atkins, of Clare College; and H. C. Pattin, of Jesus College. Bachelor of Medicine and Bachelor of Surgery: F. J. Lidderdale, of Trinity College; H. M. Hart-Smith, of Caius College; and A. C. Jordan, of Sidney Sussex College. Professor Sims Woodhead received the degree of Master of Arts *honoris causâ* on March 16th.

THE LATE MR. R. W. PENDLETON.—Mr. Richard Warren Pendleton, M.R.C.P. Irel., son of the late Captain Henry Pendleton, Co. Meath, Ireland, died on March 4th at his residence, Sillwood Lodge, Brighton. He commenced practice in Liverpool, but ill-health compelled him to go to Port Augusta, in South Australia, where he remained for eight years. Whilst there he met with a carriage accident which seriously affected his spine and permanently impaired his health. In 1887 he returned to England and after undergoing treatment he started a medical home at Brighton. His death was due to double pneumonia which lasted only five days. He was 58 years of age and by his wonderful patience in suffering he endeared himself to all who knew him.

DIPHTHERIA IN LONDON.—The amount of notified diphtheria in London during the second period of four weeks of the current year was almost identical with that of the first period ended on Jan. 28th. In the January period there were 959 notified cases and 957 in the February period, the respective weekly averages being 240 and 239. In January there was but one district uninvaded, as also in February. In January four sanitary districts had each upwards of 50 notified cases, with an aggregate of 289; in February there were five such districts with an aggregate of 365 notified cases, whilst other five districts had only nine cases in all. The 125 registered deaths of the January period, averaging 31 per week, gave place to 150, or 37 per week. The 150 were made up of 32 (being 14 below the corrected decennial average of the corresponding week of the period 1888-97), 49 (being 8 in excess of the average), 40 (identical with the average), and 29 (being 13 below the average). The case mortality of 13·0 per cent. of the January period was succeeded by one of 15·6 per cent. in the February period. In the Outer Circle the data were of serious import. The 57 deaths in the earlier period gave place to 70, or 17 per week. In other words, the suburban ring yielded nearly half as many deaths as the whole of the county of London with its much greater population. But if this be said of the fringe of London as a whole much more must needs be said of the single area of the West Ham registration district. Herein were 20 deaths in the January period, but as many as 38 in the February period, a little over a fourth of the diphtheria death-rate for the whole of London and 17 per cent. of the whole of the diphtheria deaths in the four weeks in Greater London. The matter calls for serious notice.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Lee Conservancy Board

THE London County Council has withdrawn from its General Powers Bill the clauses relating to the Lee Conservancy Board on receiving an assurance that the Board will itself introduce a Bill for its reconstitution in such a manner as to make it representative of all the interests of the River Lee.

Tuberculosis.

The debate on tuberculosis and on the reports of the Royal Commission which had been arranged to take place in the House of Commons on Tuesday, March 14th, was postponed owing to the Government appropriating the time of private members for its own business.

HOUSE OF COMMONS.

THURSDAY, MARCH 9TH.

The New Cantonment Rules in India.

Major RASCH asked the Secretary of State for India whether, in view of the facts stated in the Army Medical Report of 1897 that the number

of admissions to hospital for venereal disease per 1000 was 507, only 3 per cent. less than in 1896, and that the number invalided to England in 1897 was 662, an increase of 183 over the previous year, the Government would consider the advisability of permitting the Indian Government to take such measures as they might think fit for the detection of diseased persons of both sexes and to detain such persons in hospital until cured, and whether the Government had received any reports as to the effectiveness or otherwise of the new cantonment rules enforced in 1899.—Lord GEORGE HAMILTON replied: The statement quoted by my honourable and gallant friend relates to troops in cantonments only. Including those on field service the admission rate for venereal disease was 485 per 1000 in 1897, against 511 in 1896—a reduction of 26 per 1000. The new cantonment rules were not brought into operation until towards the end of 1897 and could not be expected to have much effect in lowering the ratio for the whole year. No report has yet been received as to their effectiveness or otherwise and until the results of their working have been ascertained I do not propose to take any further action. The returns for 1898 so far as they are known are very encouraging and show a considerable further decrease.

Sale of Food and Drugs Bill.

There was further debate at this sitting on the motion for the second reading of the Sale of Food and Drugs Bill.—Mr. T. W. RUSSELL, Parliamentary Secretary to the Local Government Board, spoke in support of the Bill. It was true, he said, that clause 4 did not fix a standard for any article and what was proposed only covered three articles—milk, butter, and cheese; but looking at the enormous difficulty, if not impossibility, of fixing exact standards, he asked was it not wiser to arrange, as the clause arranged, for a decision of experts that would establish, not an exact standard, but a presumption as to purity, leaving a certain elasticity to cover different cases? As to preservatives, the Select Committee arrived at no decision. They were not satisfied that preservatives were prejudicial to health and they certainly did not believe them to be used fraudulently. Why, therefore, should their use be prohibited by the Bill? He did not believe preservatives did harm. He believed they were useful in legitimate trade and the Government saw no reason for prohibiting their use. Coming to colouring, he contended that the artificial colouring of butter could not be stopped. Most, if not the whole, of the foreign butter in the English markets (and that was most of the butter used in this country) was artificially coloured. The colouring was not injurious to health and to attempt to prevent the colouring of butter would rouse a storm of opposition and be most unfair to traders. The penalties to be imposed under the Bill were said to be insufficient. Magistrates hesitated to inflict the present moderate penalties and if those penalties were increased they would find means of dismissing the case. The question of penalties was for the Committee to whom the Bill would be referred to consider, but the Government did not see their way to provide for heavier penalties than those mentioned in the Bill.—At the close of the debate the Bill was read a second time and a motion was formally made by Mr. WALTER LONG, the Minister in charge of the Bill, to refer it to the Standing Committee on Trade. This motion was left for future discussion.

Metropolitan Water Companies Bill.

This Bill for intercommunication between the metropolitan water companies was read a second time after a short discussion and referred to a Select Committee.

FRIDAY, MARCH 10TH.

The Dangers of Water Gas.

Mr. ASCROFT asked the Home Secretary whether his attention had been called to the report of the Departmental Committee appointed to inquire into the manufacture and use of water gas and other gases containing a large proportion of carbonic oxide and to the dangers which were likely to arise to the public safety unless restrictions were placed upon the manufacture, as recommended by such Committee, and, whether it was the intention of the Government to introduce a Bill dealing with the question.—Mr. JESSE COLLINGS who replied to the question said: The report of the Departmental Committee was made to the Secretary of State and was by him laid upon the table of the House. He is now consulting his colleagues, the Presidents of the Board of Trade and of the Local Government Board, who were represented on the Committee, as to the recommendations, but it has not yet been decided what action should be taken.

The Study of Tropical Diseases: Statement by Mr. Chamberlain.

While the House was in Committee of Supply on the Civil Service Supplementary Estimates Dr. CLARK raised the subject of the scheme of the Government for the special study of tropical diseases.—Mr. CHAMBERLAIN took the opportunity of making a statement on the subject. It was well known, he said, that all the colonies, and especially the West African colonies, were subject to peculiar diseases of a most distressing and very often of a fatal character. He did not know that there had been anything that had given him more pain and anxiety in connexion with his tenure of the Colonial Office than the constant reports of the deaths of very promising officers in consequence of these diseases and he had endeavoured to see what could be done to make this state of things better. He was not at all hopeless about it because the same sort of thing was formerly said of other colonies which now were, at all events, very fairly healthy. For instance, the same thing happened at the time of our first occupation of Calcutta and the description given of Calcutta in the early days might in almost every word be the description which he should be inclined to give now of some of the worst of our West African stations. In the same way Hong-Kong was once called "the white man's grave" and Lord Grey, he thought, expressed a regret that it had ever been taken over although he felt that under the circumstances as it had been occupied so long it was not possible to give it up. They hoped, in fact, to do for our West African colonies very much the same as had been done for Calcutta and Hong-kong. He hoped, without being able to say that they were going to make a sanatorium of places of this kind, that at least they might reduce the unnecessary mortality which he believed went on in consequence of preventable causes. Those preventable causes were numerous and all of them had had his most careful attention. One cause was the insufficient and improper nursing, and the remedy, he was most happy to say, was now being undertaken by a private association called the Colonial Nursing Association, which was sending out to all these colonies trained European nurses to deal with the sick patients who required their attention. A second difficulty had been that of finding medical practitioners who were acquainted beforehand with these peculiar diseases; the diseases themselves were very peculiar and it was almost impossible to give clinical instruction to medical practitioners who were going out to the coast in these particular diseases. It was suggested to him by the very able and well-known medical gentleman who was the Colonial Office adviser in all these cases, Dr. Manson, that they might establish a graduates' class, and that just in the same way as they had a school of musketry at Hythe to which military men were always sent for a month or a couple of months' training before they went to their foreign appointments, so they might have a school of tropical medicine somewhere in the country to which all the medical men sent to these countries should go for two months before leaving, and in which they might have clinical and practical instruction in the cure of these particular diseases. Dr. Manson considered that the *Dreadnought* Hospital offered the best opportunity for dealing with these matters, as it so happened that many sailors went there who came home from the colonies suffering from these diseases, and there was more opportunity for efficient study provided there than at any other hospital. They had considered very carefully the alternative advantages of Netley and Haslar, but they came to the conclusion that it would be very much better to take advantage of the *Dreadnought* Hospital. Accordingly, arrangements had been made for erecting the necessary buildings for the accommodation of the medical men who would go through this probationary course and they hoped also in a short time to have accommodation there for nurses who equally required a similar training. That would cost a considerable sum annually and a considerable sum for first expenditure. That sum would be provided partly by private subscriptions in this country, partly by contributions from the colonies, and partly by this small grant—for it was really a small grant—which the Chancellor of the Exchequer had been good enough to give him for the purpose. He should say that up to the time when they made this proposal he did not think it had been made by anybody else, but the moment it was made there was some disturbance in the minds of the medical officers of different institutions, who all thought their institutions ought to have been or might have been selected instead of the one actually selected. He believed, though he could not speak confidently, that they had satisfied these gentlemen, so far, at all events, as they had seen their complaints, by assuring them that to such cases as King's College Hospital, for instance, or the Liverpool School, or other cases in which special training in tropical diseases was given, they would give a preference in the selection of officers for these colonies. But they did not intend to give up the further security that after these gentlemen had been selected they should undergo this probationary course of two months at the *Dreadnought* Hospital before they finally left.—Dr. FARQUHARSON, after expressing approval of the arrangement, asked whether the vote would be an annual one.—Mr. CHAMBERLAIN explained that the present vote was for the cost of the buildings. He had been in communication with the Royal Society and the Royal Society had made a grant which the Government proposed to supplement. A Commission had been appointed by the Royal Society to inquire into the cause and cure of malaria. That Commission would visit Egypt to study the experiments which had been made there and would then go on to India. They would afterwards probably go to Nyassaland, where there was a permanent station, to make examinations on the spot, and would wind up in West Africa.—General RUSSELL said he had suffered greatly from West African fever and he had found that there was scarcely a medical man in London who knew anything about it.—Mr. LAWRENCE, one of the representatives of Liverpool, said he was sorry to find that that city was not to benefit by this grant and suggested that having regard to the trade with West Africa carried on in Liverpool there should be a hospital established there for the study of tropical diseases.—The vote was shortly afterwards passed by the Committee.

MONDAY, MARCH 13TH.

The Sale of Carbolic Acid.

Dr. FARQUHARSON asked the Home Secretary whether, considering the frequency of accidental poisoning by carbolic acid, the Government would now consent to the addition of this substance to the schedule of poisons within the meaning of the Pharmacy Act, 1868, thus making it subject to the poison regulations recently adopted by the Pharmaceutical Society of Great Britain in accordance with the Act, which require that all lotions containing poison shall be sent out in bottles readily distinguishable by touch from ordinary medicine bottles.—Mr. JESSE COLLINGS, who replied to the question, said: The Secretary of State understands that the Privy Council, while not thinking it expedient to include carbolic acid in the Schedule of the Pharmacy Act, are of opinion that regulations should be made with regard to its sale and have prepared a Bill for the purpose. It is, however, impossible to say whether the state of public business will permit of the Bill being introduced this session.

Army Nursing.

Captain NORTON asked the Under Secretary of State for War whether he could state the exact training in months and years of the army nursing sister and of the army orderly respectively; and whether the men of the Medical Staff Corps were employed in many other duties besides nursing, such as cooking, gardening, clerking, and general cleaning work.—Mr. WYNDHAM said: An army nursing sister is required to have had three years' training in a civil hospital and six months' probation in the Army Nursing Service before her appointment is confirmed. A private of the Royal Army Medical Corps receives theoretical and practical instruction at the dépôt at Aldershot for about five months. He is then attached as a supernumerary to a large military hospital to learn practical nursing and ward work, and he remains there until he is considered efficient. His education, however, is systematically continued throughout his service with the colours. That it is sound may be inferred from the fact that many on leaving the colours obtain employment at good salaries as nurses in institutions and for private cases. The Royal Army Medical Corps is responsible for all hospital duties, including those mentioned in the

second paragraph of the question, but all the men are available for nursing duties and perform them in turn. Where there is gardening to be done pensioners are as far as possible employed.

TUESDAY, MARCH 14TH.

Contaminated Oysters.

Mr. CHAPLIN, in reply to a question by Mr. Lodor as to whether he could now state when he hoped to be able to introduce the Bill dealing with the subject of contaminated oysters, said that he was not in a position to name a precise date, but he hoped it would be an early one.

Margarine Factories.

Mr. WALTER LONG stated, in reply to a question, that margarine factories are not subject to periodical inspection and when it was suggested to him that provision for such inspection should be made in the Sale of Food and Drugs Bill he said he scarcely thought it necessary, but if an amendment were brought forward he would give it due consideration.

WEDNESDAY, MARCH 15TH.

The Petroleum Question.

The whole of this sitting was devoted to a debate on a Bill introduced by Mr. Harold Reckitt to raise the legal flash-point of petroleum oil from 73° to 100° F. The Government, as represented by Mr. Jesse Collings, opposed the Bill and at the close the measure was rejected by 244 to 159 votes. Mr. Collings intimated in the course of his speech that the Home Office has prepared a Bill dealing with lamp construction and other points discussed in the report of the Select Committee on the Petroleum Question.

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The Essentials of Chemical Physiology. By W. D. Halliburton, M.D., F.R.S. Third edition. 1899. Price 5s.

MURRAY, JOHN, Albemarle-street, London.
Handbook of Physiology. By W. D. Halliburton, M.D., F.R.S. Fifteenth edition. Illustrated. 1899. Price 14s.

NEWNES, GEORGE, LTD., Southampton-street, Strand, London.
The Story of the British Race. By John Munro. 1899. Price 1s.

NEW SYDENHAM SOCIETY, London.
On Fractures and Dislocations. By Professor Dr. H. Helferich. Translated from the third edition by J. Hutchinson, Jun., F.R.C.S. Illustrated. 1899.

OPEN COURT PUBLISHING COMPANY, Chicago, and KEGAN PAUL, TRENCH, AND COMPANY, London.
Truth and Error or the Science of Intellection. By J. W. Powell. 1898. Price 9s.
The Principles of Bacteriology. By F. Hueppe. Translated by Dr. E. O. Jordan. 1899. Price 9s.
The Gospel according to Darwin. By Woods Hutchinson, A.M., M.D.

REBMAN PUBLISHING COMPANY, Shaftesbury-avenue, London.
The Sanitation of British Troops in India. By E. Carrick Freeman. 1899. Price 2s. net.
A Text-book of Obstetrics. By B. C. Hirst, M.D. Illustrated. 1899. Price 28s.
The American Year-book of Medicine and Surgery. Edited by G. M. Gould, M.D. Illustrated. 1899. Price 38s.

REDWAY, GEORGE, London.
Braid on Hypnotism. Neurypnology. By James Braid, M.R.C.S. A new edition. Edited by A. E. Waite. 1899. Price 10s. 6d. net.

SAMPSON LOW, MARSTON, AND COMPANY, Fetter-lane, Fleet-street, London.
Twentieth Century Practice. An International Encyclopedia of Modern Medical Science. Edited by T. L. Stedman, M.D. Vol. xvii. 1899.

SPOTTISWOODE AND COMPANY, Gracechurch-street, London.
Minutes of the General Medical Council and of its various Committees and Branch Councils, for the Year 1898, with 16 appendices. Vol. xxxv. 1899.

SWEET AND MAXWELL, Chancery-lane, London.
The Law of Inebriate Reformatories and Retreats. By Wyatt Paine, Barrister-at-Law. 1899. Price 6s.

VOGEL, F. C. W., Leipzig.
Arbeiten der Chirurgischen Universitäts-Klinik, Dorpat. Von Wilhelm Koch. Zweites Heft. 1899.

Willing's Press Guide of the United Kingdom, 1899 (James Willing Jun., Limited, Strand, London, W.C.). Price 1s.—Magazines, &c., for March: Strand Magazine, Boy's Own Paper, Girl's Own Paper, Leisure Hour, Sunday at Home, Ludgate Magazine, Westminster Review, Contemporary Review, Friendly Greetings, Myra's Journal, Pall Mall Magazine, Windsor Magazine, Cornhill Magazine, Blackwood's Magazine, Pearson's Magazine, English Illustrated Magazine, Knowledge, Humanitarian, St. Peter's Magazine, New Century Review, Royal Atlas of England and Wales (Part I.).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ALEXANDER, T. A., L.R.C.P., L.R.C.S. Irel., has been re-appointed Medical Officer for the Saham Toney Sanitary District of the Swaffham Union.

BARLOW, THOMAS, M.D. Lond., B.Sc., F.R.C.P., M.R.C.S., has been appointed to the vacancy in the body of the University of London Commissioners caused by the resignation of Sir William Roberts, M.D.

BATELY, JOHN, M.D. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the Belton Medical District of the Mutford and Lothingland Union.

BAYLIS, H., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Queen's Hospital, Birmingham.

BRISCOE, W. T., M.D., M.Ch. Dubl., has been re-appointed Medical Officer of Health by the Chippenham Town Council.

CAVE, EDWARD J., M.D. Lond., M.R.C.P. Lond., has been appointed Physician to the Royal United Hospital, Bath.

COOMBS, M. L. B., L.R.C.P., L.R.C.S. Edin., has been re-appointed Medical Officer of Health to the Borough of Newport, Isle of Wight.

DAY, F. R., M.B., Ch.B. Vict., has been appointed a Medical Officer to the Coventry and Warwickshire Hospital.

DUNN, WILLIAM, M.B., C.M. Aberd., has been appointed Medical Officer to the Mildenhall Sanitary District of the Mildenhall Union.

FORSYTH, R., M.D. Glasg., C.M., has been re-appointed Medical Officer of Health by the Drighlington District Council.

FOSTER, H. G., L.R.C.S. Edin., L.S.A., has been re-appointed Medical Officer of Health by the Swaffham Rural District Council.

HAMILTON, J., M.D. Durh., F.R.C.S. Edin., L.R.C.P., has been re-appointed Medical Officer of Health by the Swadlincote Urban District Council.

HITCHINS, CHARLES VERNON, M.R.C.S., L.Sc., has been re-appointed Medical Officer of Health to Weston-super-Mare.

HORDER, THOMAS J., M.B. Lond., M.R.C.P., has been appointed Casualty Physician to St. Bartholomew's Hospital, London.

JEE, JOSEPH, C.B., V.C., M.R.C.S., has been appointed an Honorary Surgeon to the Queen.

MALLAM, W. A., L.R.C.P. Lond., M.R.C.S., has been appointed out-door Medical Officer to the Eastern District of the Parish of Hampstead.

MILNER, JAMES, L.R.C.P. Edin., M.R.C.S., has been re-appointed Medical Officer to the Bradenham Sanitary District of the Swaffham Union.

PALMER, A. M., L.R.C.P. Edin., M.R.C.S., has been re-appointed Medical Officer of Health by the Whittington Urban District Council.

PERSHOUSE, F., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the Bradwell Sanitary District of the Maldon Union.

STEELE, H. F., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer to the Oxborough Sanitary District of the Swaffham Union.

STONE, R. D. ALGES, L.R.C.P.&S. Irel., has been appointed Medical Officer of Health to Kelston by the Keynsham Urban District Council, vice W. Vernon resigned.

TARR, WILLIAM, M.B., Ch.B. Edin., has been appointed Junior House Surgeon to the Johannesburg Hospital.

THOMAS, A. W., L.R.C.P., L.R.C.S., has been re-appointed Medical Officer of Health for the Swaffham Urban Sanitary District.

TINLEY, THOMAS, M.D. Durh., M.R.C.P. Edin., L.F.P.S. Glasg., has been re-appointed Medical Officer of Health by the Whitby Urban District Council.

TINLEY, W. E. F., M.D. Durh., B.S., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer by the Whitby Urban District Council.

TODD, G. D., L.R.C.P. Edin., M.R.C.S., has been appointed District Medical Officer to Selby and the Union Workhouse by the Selby Guardians.

TUBB, THOMAS J., L.R.C.P. Irel., L.R.C. Edin., D.P.H., has been appointed County Medical Officer of Health for Wiltshire.

WADE, REGINALD, M.R.C.S., L.S.A., has been re-appointed Medical Officer of Health by the Highbridge Urban District Council.

WALSH, L. H., M.B. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Assistant Physician to the Royal United Hospital, Bath.

WOOD, W. D., L.R.C.P., L.R.C.S. Edin., has been re-appointed Medical Officer of Health by the Caversham Urban District Council.

WYLIE, D. S., M.B., Ch.B., has been appointed Junior Resident Medical Officer to the Manchester Children's Hospital.

Vacancies.

For further Information regarding each vacancy reference should be made to the advertisement (see Index).

BELGRAVE HOSPITAL FOR CHILDREN, 77 and 79, Gloucester-street, London, S.W.—House Surgeon for six months. Board and residence provided and a gratuity of £5 given.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN, Birmingham.—Ophthalmic Surgeon.

BLACKBURN AND EAST LANCASHIRE INFIRMARY, Blackburn.—Junior House Surgeon. Salary to commence at £50 per annum, with board, lodging, washing, &c.

BOROUGH HOSPITAL, Birkenhead.—Junior House Surgeon. Salary £60 per annum, with board and lodging, but no wine, spirits, or beer.

BRACEBRIDGE ASYLUM, Lincolnshire.—Senior Assistant Medical Officer, unmarried. Salary £150 per annum, with furnished apartments, board, attendance, and washing. Applications to the Clerk to the Visitors, Bank-street, Lincoln.

BRIXTON DISPENSARY.—Resident Medical Officer for two years, unmarried. Salary £150, with furnished apartments, attendance, coals, and gas. Applications to the Secretary, Water-lane, Brixton, S.W.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's-inn-road, W.C.—House Surgeon. Residence, board, &c., in the hospital.

CHARING-CROSS HOSPITAL, London.—Resident Medical Officer. Salary £100 a year, with board and residence.

CHESTER GENERAL INFIRMARY.—Visiting Surgeon for two years. Salary £80 per annum, with residence and maintenance in the house.

CUMBERLAND AND WESTMORLAND ASYLUM, Garlands, Carlisle.—Junior Assistant Medical Officer, unmarried. Salary £100 a year, with board and residence.

DERBY COUNTY ASYLUM.—Assistant Medical Officer. Salary £100, rising to £120, with board, lodging and washing.

DINORWIC QUARRY HOSPITAL.—Assistant to act as Assistant Surgeon. Salary £150 a year, with half midwifery fees attended by him. Applications to Mr. Roberts, Dinorwic Quarry Hospital, Llanberis, North Wales.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—Medical Officer for the casualty department for six months. Salary at the rate of £100 per annum.

GLASGOW EYE INFIRMARY.—Resident Assistant House Surgeon. Salary £50, with apartments and board.

HEIGHAM HALL ASYLUM, Norwich.—Assistant Medical Officer.

HOLBEACH UNION.—Medical Officer for the Gedney Hill District. Salary £50 and usual fees. Applications to the Clerk to the Guardians, Holbeach.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House Surgeon for six months. Salary £25 for that period, with board and lodging.

LIVERPOOL NORTHERN HOSPITAL.—Resident House Surgeon's Assistant for six months. Board and lodging provided.

MANCHESTER ROYAL INFIRMARY (BARNES CONVALESCENT HOSPITAL), Cheadle.—Clinical Assistant at the Barnes Convalescent Hospital for six months. Board and lodging provided.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Hampstead and Fitzroy-square, W.—Junior Non-resident Medical Officer for six months. Honorarium at the rate of £45 per annum. Applications to the Secretary, Offices, 41, Fitzroy-square, W.

NORTH ORMESBY HOSPITAL, Middlesbrough.—House Surgeon, non-resident, single. Salary £200

PARISH OF BIRMINGHAM.—District Medical Officer. Salary £400 per annum and an allowance of £50 a year towards the expense of keeping a vehicle. Applications to the Clerk, Parish Offices, Edmund-street.

PARISH OF ST. LEONARD, SHOREDITCH.—Second Assistant Medical Officer for the Infirmary, Hoxton-street, N., for six months. Salary at the rate of £70 per annum, with rations, washing, and furnished apartments in the infirmary. Applications to the Clerk to the Guardians, Clerk's Office, 213, Kingsland-road, N.E.

PARISH OF ST. MARY, ISLINGTON.—Medical Officer for No. 1, Upper Holloway, East District. Salary £100 per annum with certain extra fees, subject to statutory deductions. Applications to the Clerk, Guardians' Offices, St. John's-road, Upper Holloway. Also, Medical Officer to the School in Hornsey-road, Holloway. Salary £100 per annum, subject to statutory deductions. Applications to the Clerk, Guardians' Offices, St. John's-road, Upper Holloway, N.

ROXBURGH DISTRICT ASYLUM, Melrose.—Assistant Medical Officer. Salary £100 per annum, with furnished quarters, board, washing, and attendance.

ROYAL EYE HOSPITAL OF THE ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL, St. George's-circus, Southwark.—Assistant Surgeon. Honorary.

ROYAL PIMLICO DISPENSARY, 104, Buckingham Palace-road.—Attending Medical Officer.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon for six months. Gratuity £10, conditionally.

ST. MARYLEBONE INFIRMARY, Ladbroke-grove-road, London, W.—Resident qualified Clinical Assistant to the Medical Superintendent for six months. Salary at the rate of £42 per annum.

SEAMEN'S HOSPITAL SOCIETY ("Dreadnought"), Greenwich, S.E.—House Surgeon for Branch Hospital, Royal Victoria and Albert Docks, E. Salary £50 per annum, with board and residence.

SUSSEX COUNTY HOSPITAL, Brighton.—Fourth Resident Medical Officer, unmarried. Salary £30 per annum, with board, washing, and residence in the Hospital.

SWANSEA GENERAL AND EYE HOSPITAL.—House Physician for one year. Salary £50 per annum, with board, apartments, washing, and attendance.

TAUNTON AND SOMERSET HOSPITAL, Taunton.—Assistant House Surgeon for six months. Honorarium of £10 10s. given, with board, washing, and lodging in the hospital.

TOTTENHAM HOSPITAL.—Resident Medical Officer for one year. Salary £60 per annum, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

BOSWELL.—On March 13th, at Ashbourne, Derbyshire, the wife of Alexander Boswell, M.D., of a son.

COX.—On March 6th, at 58, High-street, Watford, the wife of Alfred H. Cox, L.R.C.P., M.R.C.S., of a son.

GOOD.—At Devon House, Prospect, Adelaide, South Australia, on Feb. 6th, 1899, the wife of J. Ernest Good, M.B. (*née* Williams, of Donhead, Wallington, Surrey), of twin daughters.

HICKS.—On March 7th, the wife of Philip Hicks, M.D., The Parade, Leamington Spa, of a daughter.

NORTON.—On March 14th, at Iddesleigh-mansions, Westminster, the wife of John Norton, M.D., D.P.H., of a son.

SANDERSON.—On March 8th, at Montpellier-road, Brighton, the wife of Robert Sanderson, M.B. Oxon., of a daughter.

SEAL.—At Darjeeling, Feb. 22nd, 1899, the wife of Charles E. Baldwin Seal, M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

SHADWELL.—On March 9th, the wife of St. Clair B. Shadwell, M.D., Lynhurst, Walthamstow, of a son.

MARRIAGE.

BROWN—POPE.—On March 9th, at St. Margaret's, Westminster, Henry Reynolds Brown, M.B., C.M., of Maldon, Essex, to Helen Evelyn Pope, of Latchingdon Rectory, Essex.

DEATHS.

BARKLEY.—On March 8th, at Brighton, suddenly, Charles Horace Barkley, L.R.C.P., L.R.C.S., aged 40 years.

KNIGHT.—On March 12th, at Rotherham, suddenly, Henry John, youngest son of the late Rev. Jas. Knight, M.A., rector of St. Paul's, Sheffield, aged 62 years.

RUDGE.—On March 12th, at Fakenham, Edward Drosier Rudge, M.D.

VISE.—On March 4th, 1899, at Abbott's Manor, Holbeach, Lincolnshire, Ambrose Blithe Vise, M.R.C.S., L.S.A., aged 68 years.

WILLIAMSON.—On March 13th, at Petherton-road, Highbury New-park, N., aged 84 years, James Williamson, M.D.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Mar. 16th, 1899.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Mar. 10	29·81	WNW	0·01	81	55	38	38	40	Hazy
,, 11	30·27	W.	...	62	54	40	41	42	Foggy
,, 12	30·45	S.W.	...	81	58	41	48	50	Overcast
,, 13	30·57	S.E.	...	67	57	45	44	45	Foggy
,, 14	30·54	S.	...	54	53	37	39	40	Foggy
,, 15	30·44	E.	...	78	59	39	42	44	Hazy
,, 16	30·42	E.	...	48	44	37	37	38	Foggy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (20th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (9.30 A.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Westminster (2 P.M.), London Throat (2 P.M.).

TUESDAY (21st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.).

WEDNESDAY (22nd).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.).

THURSDAY (23rd).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.).

FRIDAY (24th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.).

SATURDAY (25th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (21st).—PATHOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—Dr. W. P. Herringham: An Account of Experiments upon the Toxicity of Urine in Search of the Cause of Uræmia (illustrated).—Dr. R. Crocker: Tumours from the Forehead.—Dr. F. P. Weber: Diffuse Syphilitic Change in the Liver.—Dr. Russell and Dr. Buzzard: Paramœcium Cysts in the Liver.—Dr. N. Dalton: Two Cases of Destruction of the Recurrent Laryngeal Nerve.—Dr. C. Thomson: Case of Melanotic Sarcoma. Card Specimen: Dr. F. P. Weber: Lipoma of Kidney.

CHELSEA CLINICAL SOCIETY (Parish Hall, Pavilion-road, Sloane-square, S.W.).—8.30 P.M. Adjourned Discussion on Dr. Penny's paper on the Radical Cure of Hydrocele. Papers: Dr. Abrahams: Modern Views in Neurology.—Dr. T. V. Dickinson: Remarks on Two Cases of Enteric Fever complicated by Rigors and Exacerbations of High Temperature.—Mr. Nitch-Smith: The Use of Baths in Skin Diseases.

WEDNESDAY (22nd).—HUNTERIAN SOCIETY.—8.30 P.M. Mr. A. H. Tubby: Some Cases illustrating the Surgery of the Stomach.—Dr. F. Fox: On Some Unusual Nervous Symptoms.

THURSDAY (23rd).—BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Specimens will be shown by Mr. Jessett, Dr. Bantock, Dr. Lawrie, Mr. Ryall, Dr. R. T. Smith, and Dr. Oliver. Paper:—Dr. J. Oliver: Adenoma Universale of the Endometrium infiltrating the Myometrium in a Virgin.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Adjourned Discussion on Dr. D. Kerr's and Dr. Hedley's paper on the Therapeutics of Heat. Dr. Ward-Humphreys, Dr. R. Sibley, Dr. Bain (Harrogate), Dr. H. Campbell, Dr. Pelkin, Dr. A. Haig, Dr. Smith (Harrogate), Dr. B. Davies (Llandrindod Wells), the President, and others will take part in the discussion.

FRIDAY (24th).—CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers:—Mr. J. Langton (President): A Case of Aneurysm of the Abdominal Aorta successfully treated by the introduction of Silver Wire into the Sac.—Mr. Rutherford Morison: Patients showing results of Stomach Surgery with descriptions of the Operations Performed.—Dr. Radcliffe Crocker: A Case of Lymphangioma Tuberosum Multiplex.—Mr. W. G. Spencer: Wound of a large superficial Artery in which the Blood was flowing from the Trunk to the Thigh.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (20th).—ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. C. Stewart: Alternation of Generation, and Recent Additions to the Museum.

TUESDAY (21st).—ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Gee: The Nature of Pulmonary Emphysema. (Lumleian Lecture.)

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM (73, Welbeck-street, W.).—4 P.M. Dr. H. Campbell: Disorders attended by Loss of Consciousness.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. Dr. R. Russell: Cerebral Tumours (lantern demonstration).

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. E. Ray Lankester: The Morphology of the Mollusca.

WEDNESDAY (22nd).—ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. C. Stewart: Alternation of Generation, and Recent Additions to the Museum.

EVELINA HOSPITAL (Southwark-bridge-road, S.E.).—4.30 P.M. Mr. D. Pedley: Clinical Demonstration on Dental Cases from the Wards. (Post-Graduate Course).

THURSDAY (23rd).—ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Gee: The Nature of Asthma. (Lumleian Lecture.)

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—4.30 P.M. Dr. M. Dockrell: Cases of Rodent Ulcer and other Malignant Diseases of the Skin.

LONDON TEMPERANCE HOSPITAL.—2 P.M. Dr. S. Fenwick: Clinical and Pathological Demonstration to Senior Students.

FRIDAY (24th).—ROYAL COLLEGE OF SURGEONS OF ENGLAND.—5 P.M. Prof. C. Stewart: Alternation of Generation, and Recent Additions to the Museum.

ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Right Hon. Lord Rayleigh: Transparency and Opacity.

SATURDAY (25th).—ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Right Hon. Lord Rayleigh: The Mechanical Properties of Bodies.

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICES.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index to Vol. II. of 1898, which was completed with the issue of Dec. 31st, and the Title-page to the Volume, were given in THE LANCET of Jan. 7th.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1898 are now ready. Bound in cloth, gilt lettered, price 18*s.*, carriage extra.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*, by post 2*s.* 6*d.*

To be obtained on application to the Manager, accompanied by remittance.

MEDICAL INFORMATION IN LAY PAPERS.

THE following answer to a correspondent appeared in the *Gentlewoman* of March 11th, 1899, and has been forwarded to us by a correspondent who asks us what we think of it:—

> "As Paying Guest in a Lady's House in Hereford for Medical Treatment.—You will certainly recover in a better climate. I know from experience how trying the Indian heat is, for I have been in exactly the same predicament as yourself. You cannot do better than pick up your strength in the warm, bracing climate of the Riviera on your way home. But I must warn you that the French Riviera in spring is not cheap; and in the very moderate priced houses you will, of course, not find a large amount of comfort. I recommend you to try Hyères, where, at the Hôtel de France, you will be exceedingly comfortable for 7 francs a day. Now for your questions. 1. In Hereford you cannot do better than put yourself under Dr. Turner who is the principal medical man in the town. His address is St. Owen's-street. All doctors of modern ideas are now favourable to the use of chloroform in cases like yours, provided the patient (and you will be after a little Europe) is physically fit. 2. I cannot tell you of any lady taking paying guests for treatment in Hereford, but I should suggest your writing to Dr. Turner to inquire. It is against my rule to recommend lodgings, but as you are so far away and your case is one that will not wait, you can rely upon being comfortable at the following address: Miss Elliott, 21, Broad-street, Hereford. (K. F., Mhow.)"

We think as follows:—

(1) That the writer assumes a grave responsibility in promising certain recovery to a patient upon the strength of the patient's own description of her symptoms; (2) that this fact alone goes far to prove that the person giving medical advice is not a medical practitioner; (3) that Mr. Thomas Turner, F.R.C.S. Eng. L.S.A., will resent the publicity that has been thrust upon him in a lay paper all the more that he has been exalted at the expense of his 19 other medical colleagues in that city and that he will not know himself in the character of a man who recommends lodgings; and (4) that the writer of the reply should for the future make the same rule about medical men as for lodgings and abstain from recommending them.

The whole question of medical advice in lay papers is one which requires the serious consideration of medical men and of the public. When we in THE LANCET raise up our voice against the system of treating disease by correspondence we lay ourselves open to a double suspicion of being narrow and jealous in our views. Firstly, it is alleged that in an eagerness to speak on behalf of the medical profession we lose sight of the possibility that it might be for the good of the public to be able to obtain this sort of medical advice. Secondly, it is suggested that we desire to keep for the medical press a monopoly in medical information. To deal with the latter and the totally unimportant point first we have only to say that we do not cater for the public, that we do not give medical advice, and that we do not recommend medical practitioners. The larger matter is worth a little more consideration and we would impress upon our readers the desirability of pointing out what follows to their patients whenever opportunity arises. Why should the public pay a medical man to diagnose and treat its diseases when the obliging editor of a lay paper will give his assistance for nothing? This is the practical way in which the public may speak. The answer is that the assistance is worth nothing. The persons who are responsible for the replies to the medical queries in lay papers are generally not medical men and never medical men of any standing in their profession. This is implied by the fact that no serious medical man would attempt to diagnose and treat patients upon their descriptions of their symptoms and proved by the nature of the replies wherein serious mistakes often abound. In our opinion, medical men should use their undoubted influence with the public to urge the unseemly and dangerous nature of the so-called "medical" columns in the lay press.

The example we have quoted at the head of this note is a favourable one in that it contains no silly recommendation to abstain from all physic, no poisonous prescription, and no diagnostic guesses. We may be certain what Mr. Turner's opinion of the reply will be; and we hope that he will let the editor of the *Gentlewoman* share it with him, for he has our sympathies in the disagreeable position in which he has been placed through no fault whatever of his own. For we know that he has not been privy to the advertisement of his merits.

DR. LAPPONI ON THE POPE'S ILLNESS.

IN a letter addressed *ad populum* rather than *ad clerum* Dr. Lapponi explains to the Roman Catholic world why the hæmatic cyst recently removed from the left lumbar region of his august patient was not operated upon at an earlier date. He says: "A cyst in irritation ought to be removed without delay, even in the case of an old man. A cyst not in irritation may be operated upon in a young man; not always in an old man. Violent pain may be the cause of death by syncope. In a young man chloroform may be employed; not always in an old man. In the Pope's case the operation was not attempted some years back because the difference of age remaining constant the other conditions of health offered no advantage over the present state. He who is old at 90 years is not young at 85. The operation was not performed before because the pain felt and the risk incurred under the knife in a nonagenarian subject would have had equally, but with anticipation, to be overcome in one five years younger. ..... Such a cyst in a state of tranquility is an inconvenience, not a disease. If a disease ought always to be combated an inconvenience ought occasionally to be tolerated for fear of making matters worse. ..... These considerations, as they influenced Professor Madruzza 25 years ago and Professor Ceccarelli 10 years ago and more recently other able surgeons, so they influenced me in withholding active intervention. So long as it was possible I preferred a 'masterly inactivity,' practising precautions of a subsidiary kind. I wished to do to another what in similar circumstances I should have wished done to myself, employing a continuous and rigorous vigilance, and decided not to incur the risks inseparable from operation, unless circumstances left no other course possible. Certainly the surgical treatment of a voluminous hæmatic cyst not in inflammation is more propitious than similar interference in a parallel cyst when inflammation is present. ..... Be all this as it may, the success of the operation seems amply to justify the prudent, vigilant, expectant course, which, up to a few days ago was imposed on me, and which, to every experienced and loyal surgeon, cannot but appear, on the grounds of humanity as well as of science, to have been the most correct one."

MEDICAL AID SOCIETIES.

To the Editors of THE LANCET.

SIRS,—Although it is difficult to ascertain the number of trading companies which exploit the profession with reference to the provision of medical aid, yet I am assured from several correspondents that a very large number of men do lend themselves and their names towards increasing the business of these purely money-earning societies. We as a profession can hardly interfere with the work of insurance companies, although we may have our doubts as to the wisdom of promoting the insurance of infants' and children's lives; but when these so-called insurance companies employ men to canvass or tout for clients for medical purposes, then I think it is full time that some strong protest should be made. That the medical officers are perfectly aware of what the agents of these companies do can hardly be denied. It is much to be deplored that medical men have copied the objectionable tactics of these associations and have themselves employed canvassers or "touts" for private family clubs. Surely, Sirs, the time has come when the profession as a body should speak out, and speak out boldly, on the undignified and lowering tactics pursued.

I am, Sirs, yours faithfully,

March 6th, 1899. A GENERAL PRACTITIONER.

EXPERIMENTAL LIGATURE OF THE MESENTERIC VESSELS.

To the Editors of THE LANCET.

SIRS,—I should be much obliged if either you or one of your correspondents could give me some information on the following matter. I am under the impression that during the last year or so some experimental work has been done in animals on ligaturing certain branches of the mesenteric artery and vein to see the effect that the vascular occlusion may have on the part of the bowel supplied by that vessel with regard to the production of intestinal infarction or gangrene, the ligatures being placed at varying distances from the bowel in different experiments. I am unable to refer to this work anywhere, and if it has actually been done, I should be much obliged if one o your readers could give me the reference.

I am, Sirs, your faithfully,

March 13th, 1899. INQUIRO.

INTRACTABLE ECZEMA.

To the Editors of THE LANCET.

SIRS,—I should be very much obliged if any of your readers could give me suggestions for the treatment of a case of intractable eczema, probably gouty in origin. There is a small patch on the corona glandis, dry and scaly at times, of two years' duration, which has resisted all remedies. The patient is an adult who drinks moderately and takes plenty of exercise; there is no history of syphilis.

I am, Sirs, yours faithfully,

March 13th, 1899. W. K.

"THE THERAPEUTICS OF COMFREY."

To the Editors of THE LANCET.

SIRS,—Permit us to offer a word in reply to the inquiries of "W. S." in THE LANCET of March 11th. Comfrey may be used externally as a poultice in two ways—viz., (1) the whole plant, (2) the root. (1) the whole plant may be boiled until soft, then beaten up and applied hot; (2) the root is used far oftener than the whole plant, and the apparent good experienced by this form of treatment of tumours has been nearly always ascribed to the root. It is boiled in water till soft; then beaten into a pulpy mucilage, and spread upon leather, or linen cloth. If too liquid it may be brought to a proper consistence by the addition of a little of the dry powdered root. About two years ago the then President of the Irish College of Surgeons reported the gradual disappearance of a growth (malignant, sarcomatous, twice recurrent, and of a bad type) after steadily applying poultices of comfrey root to the tumour. "I know nothing," said

Professor Sir William Thomson, "of the effects of comfrey root, but the fact that this growth has simply disappeared is one of the greatest surprises and puzzles I have met with." Sir William Thomson resides in Dublin and would no doubt be pleased to answer any questions respecting it which "W. S." might prefer. The medicinal virtues are believed to lie in the mucilage of comfrey, which contains tannin, asparagin, sugar and starch granules, &c.

Chelidonium majus.—"W. S." also asks about the internal treatment of similar cases by chelidonium majus. Deniskeno has re-introduced it as a remedy for cancer. In internal cancer he administers an extract of the drug; in external cancer he not only does that but also resorts to an injection locally in addition—an injection composed of the extract two parts, water one part, and glycerine one part, of which he injects one cubic centimetre as a dose.

We are, Sirs, yours faithfully,

March 14th, 1899. PARKE, DAVIS AND CO.

CAMPHOR IN THE TREATMENT OF PHTHISIS.

WE have received from Dr. Bruno Alexander of Nervi and Reichenhall an 11-page pamphlet reprinted from No. 48 of the *Berliner Klinische Wochenschrift*, 1898, strongly recommending the subcutaneous injection of camphorated oil in pulmonary phthisis. If the patients' temperatures are raised, he gives a subcutaneous injection of 0·1 or 0·2 cubic centimetre (one and three-quarter minims or three and a half minims) of camphorated oil once a day for a long time—for from four to six weeks without interruption; he then allows an interval of from one to four weeks, after which the injections are resumed. The oil used is the oleum camphoratum of the German Pharmacopœia, containing 10 per cent. of camphor, so that the above quantities correspond to subcutaneous injections of one-sixth of a grain or one-third of a grain of solid camphor. If the patients' temperatures are not raised he gives larger doses for a shorter time—namely, from 0·3 to 0·5 cubic centimetre of oil (i.e., from half a grain to three-quarters of a grain of camphor) for from eight to 14 days, followed by an interval of eight days, after which the injections commence once more. Another method of treating a pyrexial patient is by daily injections of one cubic centimetre of oil (i.e., one and a half grains of camphor) for four days, followed by an interval of eight days.

WANTED A SUGGESTION FOR TREATMENT.

To the Editors of THE LANCET.

SIRS,—I should be exceedingly obliged if some of your readers would help me with the prognosis and treatment of the following case. In November of last year a friend of mine noticed her right hand to swell one day after it was kept in a strained dependent position for some little time. It became stiff and painful. In the shoulder pains were also felt at intervals. It was diagnosed as a case of subacute rheumatism and the routine treatment for same was used, but after a month the pain and stiffness were there as at the commencement. Both were aggravated by any effort at piano playing and then she felt as if the sinews were too short; indeed, for some time after she could not straighten the fingers. It should have been mentioned that previously to the onset of the symptoms mentioned the lady was almost an incessant pianoforte player. As she did not derive any benefit from the rheumatic treatment she consulted another medical man. He at once said it was a case of "pianist's cramp" and advised massage, electricity, and general tonics. The two former have been used almost daily for six weeks and she thought she was getting quite well again, but yet she feels the fingers quite stiff and wooden if a few notes only are played. Can anyone suggest any other treatment than that already mentioned together with total abstinence from the use of the pianoforte and how long does such a disease take to get well?

I am, Sirs, yours faithfully,

March 14th, 1899. MEDICUS.

THE SCOPE OF THE PENAL WORK OF THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—The General Medical Council has drafted a short Bill for the consideration of the Privy Council dealing with registered medical practitioners who "after due inquiry" have been judged by the Council "guilty of infamous conduct in a professional respect." What we, as members of the profession, complain of is that the Council troubles itself very little about medical men who are guilty of infamous conduct. Judging from the cases that from time to time are dealt with by the Council "covering" unqualified assistants and "advertising" are the chief sins committed and condemned. What has the Council done to medical men who sell practices and partnerships under false pretences? What punishment has been meted out to registered practitioners who have evaded the terms of a deed or wilfully disregarded them to suit their own purposes? There are dozens of cases annually of this kind of "infamous conduct in a professional respect"—i.e., in dealings between medical men themselves—which the Medical Council should carefully look into and severely punish. Occupying as it does the position of a medical court from which there is no appeal, it seems to fail in its duties towards the profession as a court of appeal. I have been informed by one who is well up in the details that the Council will not bring a practitioner to book for breaking or evading the terms of a deed of partnership or of dissolution of partnership, and that even if the plaintiff obtains damages in a court of law the Council will not take any notice of the matter. Surely, if medical men are proved guilty of behaving in an infamous manner towards one another (e.g., by evading the terms of a deed, by "over-reaching/and under-selling") the Council is the proper authority to take up such cases and to remove from the Register the name of any such practitioners. When this is done there will be less "farming" and selling of practices under false pretences, and less "poaching" in a district after selling the rights of practising in it. If the present members (or some of them) consider this to be outside the scope of the Council it is time for them to retire and for others with more determined and higher views to take their places.

I am, Sirs, yours faithfully,

"MAKE THE PUNISHMENT FIT THE CRIME."

TREATMENT OF HICCOUGH.

IN the *Maryland Medical Journal* of Feb. 25th, Dr. Louis Kolipinski of Washington records a case in which persistent hiccough was immediately checked by depressing the tongue. The patient, a man, 59 years of age, began to hiccough on Dec. 14th, 1898. Next day he was not able to take his meals or to work at his trade. He slept but little, the hiccough being so violent that his bed shook, and he passed the night mostly sitting up. During the next three days his state continued the same; on Dec. 17th and 18th his throat felt swollen and full and he was in dread of death by suffocation. On Dec. 18th, while Dr. Kolipinski, in order to examine the patient's throat, was pressing his tongue downwards and backwards with the handle of a large spoon using continuous steady force, the hiccough suddenly ceased. An hour afterwards it returned, but the patient placing himself in front of a mirror stopped it by using the spoon in a similar way. Two days later it reappeared but was promptly arrested by the patient as before.

THE MEDICAL WRITER IN THE LAY PRESS.

To the Editors of THE LANCET.

SIRS,—I have been asked by a firm of publishers to write a small book for domestic use on Diseases and Management of Children and it is proposed by them that a column be published each week in several of the provincial lay journals. Can you advise me if this course would be thought wrong or in any way unprofessional? I told them I could not consent to anything being done in that way without your advice.

I am, Sirs, yours faithfully,

March 10th, 1899. A. J. G.

*** The publication of the work as a serial in provincial lay journals would be most inadvisable. The procedure would certainly give great offence to the medical profession and such feeling would not be unreasonable.—ED. L.

C. K.—Horse ambulances are in existence. We believe they answered their purpose exceedingly well and we have more than once expressed our surprise that there are not more of them in use. Motor traffic is still infantine.

M.B. wishes to ascertain if puerperal eclampsia is as frequent amongst the purely vegetarian races as in the British Isles and appeals to our readers for assistance.

E. H. B.—It is unfortunately not possible to recommend any place, for locality is a mere matter of experiment. Patients are generally free at sea.

Mrs. C. K. Hunter desires us to publish her full address. It is 139, Warwick-street, London, S.W.

Anæsthetist has not enclosed his name and address.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received: *Eastern Daily Press, Sun, Manchester Courier, Liverpool Mercury, Hereford Mercury, Western Daily Press, Leicester Daily Post, Birmingham Argus, Times of India, Pioneer Mail, Scotsman, Builder, Citizen, Architect, Yorkshire Post, Brighton Gazette, North British Daily Mail, Leeds Mercury, Irish Figaro, First Aid, Liverpool Daily Post, Flint County Herald, Bristol Mercury, Sheffield Daily Telegraph, Cheltenham Examiner, Sanitary Record, Folkestone Express, East Anglian Times, New Ross Reporter, Daily Chronicle, Science Siftings, Watford Leader, Truth, Chard News, Eastbourne Gazette, Coventry Daily Telegraph, Kent Herald, Chester Courant, Taunton Echo, Essex Chronicle, Dundee Advertiser, The Stockkeeper and Fanciers' Chronicle, Crystal Palace Times, Doncaster Chronicle, Mining Journal, Hertfordshire Mercury, Reading Mercury, Local Government Chronicle, City Press, Pontefract Telegraph, Newry Standard, Dentist, Surrey Advertiser, Burnley Gazette, Eastbourne Chronicle, Local Government Journal, Harrogate Advertiser, Chiswick Times, Burton Evening Gazette, Yorkshire Weekly Post, Durham Chronicle, Slough Observer, Citizen (Gloucester), Derbyshire Times, South Wales Echo, Worcester Daily Times, Liverpool Courier Islington Gazette, Madras Standard, &c.,*

Communications, Letters, &c., have been received from—

A.—Dr. F. Arnold, Bulawayo; Messrs. Allen and Hanburys, Lond.; American Typewriter Co., Lond.; Dr. E. Armitage, Wailuku, Hawaiian Islands; Mr. Abbot-Anderson, Lond.

B.—Mr. W. G. Burcombe, Lincoln; Dr. F. O. Bell, Wareham; Birmingham, &c., Drainage Board, Secretary of; Bayer Co., Lond.; *Birmingham Daily Gazette*; Dr. William Bain, Lond.; Dr. J. P. Bush, Bristol; Messrs. Baillière, Tindall, and Cox, Lond.; Mr. C. Birchall, Liverpool; Birmingham and Midland Free Hospital, Secretary of; Dr. J. B. Berry, Keighley.

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I.—*Indian Medical Record*, Calcutta, Manager of.

J.—Jenner Society, Gloucester, Hon. Secretary of.

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N.—*North Eastern Daily Gazette*, Middlesbrough, Manager of; National Provident Institution, Lond.

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Y.—Dr. R. T. Young, Lond.

Z.—Zeta.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. F. C. Angear, Chatham; Mr. F. C. Allen, Ashton-under-Lyne; Mr. R. R. Anderson, Fern Hill; Mr. J. Aston, Lond.; A. W.; Adaminaby Post Office, New South Wales, Postmaster of; Mr. H. Angus, Liverpool; Mr. G. C. Adams, Manchester; Mr. F. C. Abbott, Lond.; A. B. P.; A. A. R.

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N.—North Riding Infirmary, Middlesbrough, Secretary of; Northern Medical Association, Glasgow.

O.—Omega.

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V.—Mr. A. B. Vise, Holbeach; V. E. B.

W.—Mr. T. F. Wyse, Crosshaven; Mr. E. H. Woodman, Birmingham; Mr. F. H. Wagstaff, Beddington; Mr. H. B. Wilkinson, Powick; Dr. H. Whittome, Lond.; W. D.; Miss Woodward, Lond.; Messrs. W. Wood and Co., New York; W. H. P.; Dr. W. H. Wilson, Preston; Mr. A. D. White, Lisburn; Woodlands, Aberaman; W. J. S.; Mr. A. Walker, Greenock; West Kent General Hospital, Maidstone, Secretary of.

Z.—Messrs. A. and M. Zimmerman, Lond.

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The Manager cannot hold himself responsible for the return of testimonials, &c., sent to the Office in reply to Advertisements; copies only should be forwarded.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Cheques and Post Office Orders (crossed "London and Westminster Bank, Westminster Branch") should be made payable to the Manager Mr. CHARLES GOOD, THE LANCET Office, 423, Strand, London, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's and other Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 8, Rue Traversière, Asnières, Paris.